# FOR MYSORE STATE

## Agriculture (1956) Department.

Ms SERIES.

G.O. No. 158

Dated 23-1-57.

passed
Sd/-

78

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[Despatch Abstract.]

Fisheries - Fisheries - Refrigeration Engineer - Mangalore - Monthly progress Report of the work done by the Fisheries Refrigeration Engineer - Report for the period from December 1953 to December 1955 - papers recorded.

Periodical. 1954

Agri (Cell)

09716 C II | 3 - 1

Memo

Dt 28/1/54

Sub:- Fisheries - Installation of ice plants cum cold storages - Progress of work done by the Refrigeration engineer - ~~Report for the~~ as daily reports. - Report for the month of December 1953 - Called for

The Dte is requested to expedite the periodical mentioned above

28/1/54 29.1.54

29/1/54

To the Dte:

29/1/54

Department of Industries and Commerce.

From
The Director of Industries
and Commerce,
Chepauk, Madras 5.

To
The Secretary to Government,
Agriculture Department,
~~Madras~~. Fort St George
Madras

No.13650-Y5/53, dated 13-2-1954.

17397

Sir,

SECOND ASSISTANT SECRETARY
16 FEB 1954
AGRICULTURE DEPARTMENT

Sub: Fisheries - installation of ice plants cum cold storages - progress of work done by the Refrigeration Engineer - report for the month of December 1953 - submitted.
- P Labour

Ref: Government memo No.9716-C.II/54-1, dated 29-1-54.

The progress report about the work done by the Refrigeration Engineer during the month of December '53 is submitted herewith.

GCS. 7 Bdls

Encl.1.
VR.13/2.

S. K. Mukherjee
13.2.54
For Director of Industries & Commerce

Copy of the report submitted by the Fisheries Refrigeration Engineer, Mangalore.

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Considerable progress has been made in the rerection of machinery at the Mangalore ice-plant during the month of December 1953.

Ice-tank. The overflow and drain couplings were welded into the ice-tank and the tank was scraped and 3 coats of read lead was painted to all surfaces of the ice-tank and the tank was shifted to its permanent place and set in the correct orientation after applying a coating of asphalt paint over the insulated concrete base. The sides were insulated with 6" of cork set with asphalt and the side insulation is almost complete. The brine agitator has to be fitted to one side of the tank and the necessary bolt holes etc. are being drilled and the brine agitator will be soon fitted.

Erection of 15 Q2 Cold diffuser in the Frozen fish store. 15 Q2 diffuser with all its components were shifted to its place of erection viz., the frozen fish store. The spray unit was fitted over the coil section with suitable gasket. The 2 H.P. Wagner motor was fitted on top of the fan section on the adjustable motor base and the double pulley belt drive was fitted. The motor was levelled and the belt aligned. The low valocity air outlets, with the adjustable vanes that are meant to adjust the direction of the cold blast was fitted on the fan section. The starter for the 2 H.P. motor was temporarily erected except for ammunia connection. The unit was run and the air circulation tested.

Erection of 15 T6 Brine spray cold diffuser in the fresh fish store:-- The 15 T6 cold diffuser with all its component parts was shifted to the fresh fish store and the fan section was mounted on the coil section, after adjusting the fans for correct for correct alignment. The brine circulation pump motor (¼ H.P.) was separately tested on 440 volt 3 phase supply and was found to overheat. The connection was then changed from delta to star connection whereupon the motor a was found to work perfectly satisfactorily without any overheat. The brine circulation pump was fitted up and the circulation and the spray was tested with water. The ½ H.P. motor was fitten on the top of the fan assembly and the doble pulley belt drive was fitten between the motor and the fan section and the motor was run with the supplied starter for a test run and the circulation was tested. The unit is completely erected, except for ammonia pipe connection and fitting of air-outlets.

At Mangalore out of the total 5 old diffusers, 3 have been erected now.

Electrical apparatus. I have tested the following motors and starters:--

5 H.P. motor and starter; 2 H.P. motor and starter 1½ H.P. motor 2 Nos. and their starters - ¼ H.P. and ½ H.P. motor and starters. The minor defects found were rectified. The Starters were cleaned and the covers of some starters were cleaned and painted with almunium paint.

Ice-cans: The 70 ice-cans supplied were separated, scraped and painted with almunium paint.

Visit of Volkart's Refrigeration Engineer. Mr. U. Ratnakara Rao, Refrigeration Engineer, to Messrs. Volkart Brothers Bombay who has come down to Mangalore was contacted by me and he was taken round the plant on 28th December 1953. He has inspected the machinery already erected and was quite satisfied with

2

whatever erection has been done. He has asked us to proceed with the following erection items in addition.

1. Erection of the remaining 2 diffusers.
2. Erection of the air-ducts in the freezing tunnel.
3. Erection of the evaporative condenser.
4. Erection of the plant room and ice-cranes.

He has however asked us to leave only the ammonia pipings to the erectior of Messrs. Volkart Borthers since it require skill. The Executive Engineer has discussed with Sri U. Ratnakara Rao about the Erection and Sri U. Rao has said that he will send the Erector within a month of the receipt of the agreement letter from P.W.D. We have also discussed various points about the erection programme.

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/ True copy /

VR.13/2.

E. K. Rao
13.2.57
For Director of Industries & Commerce

Agri (Sr)

Memo No 16476 Cl/54-1 Dt. 17-2-54

Periodical.

Sub:- Fisheries- Installation of ice plants cum cold storages- Progress of work done by the Refrigeration engineer- Report for the month of January 1954 -

Railway

The D.H.& C is requested to expedite the submission of the periodical mentioned above

17.2.54 17.2.54

17.2.54

To

The D.H.& C

22.2.54

Agri (C II)

Memo no 16476 C II | 54 - 2 of 13.3.54

Sub :- Fisheries - Installation of Ice Plants - Progress of work done by the Refrigeration Engineer - Report for the month of January 1954 - Called for.

Ref :- Govt Memo no 16476 C II | 54-1 of 17.2.54

The Director is requested to expedite the submission of the progress report referred to above.

DEPARTMENT OF INDUSTRIES AND COMMERCE.

From
The Director of Industries and Commerce, P.B.No.425, Chepauk, MADRAS.5.

To
The Secretary to Government, Agriculture Department, Fort St.George, MADRAS.

25994

No.13650-Y5/53 Dated March, 1954.

FIRST ASSISTANT SECRETARY 17 MAR 1954 AGRICULTURE DEPARTMENT

Sir,

Sub:- Fisheries - Installation of ice plants cum cold storages - progress of work done by the Refrigeration Engineer - Report for the month of January, 1954 - Submitted.

Ref:- Government Memo No.16476-C II/54-1 Dt.17.2.54.

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The progress report about the work done by the Refrigeration Engineer during the month of January, 1954 is submitted herewith.

P.S. 16 below

For Director of Industries & Commerce.

Enc: 1

nr.15/3.

Office of the
Director of Industries and Commerce,
P. .No.425, Chennai, .5.

Copy of progress report for the month of January, 1954

There has been considerable progress in the erection work Calicut and Bangalore though the erector of M/ .Voltarats have not arrived yet the work being done departmentally.

On the 1st January, 1954. au, Voltarats Refrigeration Engineer visited the factory at Bangalore with the Executive Engineer and he inspected all the units erected by us and has asked us to proceed with all other items except for Ammonia piping and Compressor mounting for which he said the erectors services will be essential. The conditions for sending the erector was discussed by the Executive Engineer of and Mr.Rau and were finalised

BANGALORE PLANT: The Brine Agitator was fitted to the brine tank and the belt drive for the same is also fitted. The motor for driving the agitator has to be mounted on a foundation.

The 1/2 H.P. starter for the 15M fan motor was connected to the motor and the fan motor was found to work satisfactorily.

The evaporative condenser was sectionalised and fan assembly and spray assembly was shifted to plant room.

The two 15Q diffuser was shifted to their place of erection and the spray units were fitted on to them.

The foundation for 15 Q2 defuser unit was laid and the completely fitted 15Q2 defuser was mounted on the permanent foundation.

The foundations for 15Q6 defusers in the freezing tunnel are completed and one of the 15Q6 units mounted over the foundation and erection of the deffuser units is in progress.

The superintending Engineer Coimbatore and the Deputy Director (South) visited the Bangalore Plant and inspected the erection work already done.

CALICUT: During the latter half of the month I camped at West Hill and following items of work has been finished.

15 TC brine spray cold deffuser was erected in the fresh fish store with its circulating pump, fan assembly, motor belt drive and starter and the unit was found to work satisfactorily. The concrete foundation for this unit is already laid and the unit has to be lifted and mounted on the foundation.

The complete erection of the 15Q2 cold deffuser was erected with all its spray unit, fan assembly, motor starter, belt drive and the outlets. The unit was found to circulate air satisfactorily. The concrete foundation for this unit is already laid down and the unit has to be lifted and mounted on its foundation.

The erection of the two 15Q6 cold deffusers for the freezing tunnel is in progress. The fan assembly for one of these units was adopted for side discharge to and mounted with spray unit, motor, belt drive, starter etc and the unit was found to circulate air satisfactorily. The concrete foundation for one of the units is ready and the unit has to be lifted and mounted on the foundation. The erection of the other units and the foundation for the same is under progress.

The foundation with bolts are complete for the evaporative condenser in the plant room.

p.t.o.

15



The 5 fish trucks and the 70 ice cans as well as the cold diffussers already erected are painted with Aluminium paint.

The position and the type of tracts to be adopted in the fresh store was discussed with the Deputy Director (South).

The bottom insulation of the ice tank is complete and the side insulation of the ice tank is in progress.

The Director of Industries, Fisheries and Controlled Commodities visited the factory on 27th January, 1954 and all the machinery erected were demonstrated to the Director in work condition.

(Sd)
Fisheries Refrigeration Engineer,
MANGALORE.

(FIRST COPY)

Forwarded/ By order/

SUPERINTENDENT.

nr.15/3

DEPARTMENT OF INDUSTRIES AND COMMERCE

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From
The Director of Industries &
Commerce, Chepauk, Madras-5.

To
The Secretary to Govern ment,
Agriculture Department,
Madras-9.

37635

No.13650-Y5/53 dated 17th March 1954.

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Sir,

Sub:- Fisheries - Installation of ice plants and cold storage Progress of work done by the Refrigeration Engineer, Mangalore for the month of February 1954 submitted.

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The monthly progress report of the Fisheries Refrigeration Engineer Mangalore for the month of February 1954 is submitted herewith.

(2)13-20 ✓
17.1.03

FIRST ASSISTANT SECRETARY
23 MAR 1954
AGRICULTURE DEPARTMENT

PK
22/3-

for Director of Industries and Commerce.

19

Copy of dated 1-3-1954 from Sri M. Jayaraj, B.E., Fisheries Refrigeration Engineer, South Kanara, Mangalore to the Director of Industries, Fisheries and Controlled Commodities Madras.

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Sub:- THE MONTHLY PROGRESS REPORT OF THE FISHEREES REFRIGERATION ENGINEER, MANGALORE FOR THE MOTH OF FEBRUARY 1954.

During the first week of February, I was at Madras attending the Asst,Director's Conference were methods of improving the actigities of the Fisheries Department as well as the other problems of the Department were discussed. While at Madras, I contacted the Electrical Engineer (General) and requested him to expedite the execution of the internal Electrification of Mangalore plant. The Electrical Engineer (General) has indicated that the work may be executed and handed over by about the end of April 1954.

The concrete foundations for the two 15Q6 cold deffuser in the freezing tunnel was completed and the two coil sections of the units were erected permanently over their foundations with its spray unit fitted. The centrfugal fan in the fan assembly was adjusted so that it runs without scraping its housing, by adjusting the bearing plate plates. The fan assemblies were mounted over the coil sections after adjusting them for side discharge of blast. The driving motor for both the units were mounted over the fan assembly and the belt drive is being fixed. The erection of these two cold diffusers is nearly complete.

The Evaperative condenser was sectionalised into spray section, fan section, coil section and pan section and the various parts are shifted to the place of erection namely Plat Room. The concrete foundation for the condenser was laid with the foundation bolts and the pan section is mounted over the foundation. The centrifugal fan in the fan assembly was adjusted to run without scraping its housings by adjusting the end bearing plates and the erection of the condenser is in progress.

The concrete foundation for 15T6 bring spray cold diffuser was laid in Fresh fish storage and is complete. The completely erected 15T6 unit was mounted over its permanent foundation.

The Electrical Engineer (General) visited the factory with the Sub divisional Officer and the various points such as conduct wiring, location of switch board was discussed at site.

I met the Resident Engineer, Mangalor Electric supply regarding the permanent High Tension supply to Mangalore plant and I have addressed the Electfical Engineer (General) to take early action regarding the construction of the substation to receive the power at High Tension, andto convert it to our working voltage. The Estimate for the same is with Electfical Engineer (General) and he as to get the work executed. The Resident Engineer, Mangalore Electric supply has told me that any working load can be met by the Electrical company only when their new alternator is commissioned, which he hopes to do by the end of April 1954.

PTO

According to the instructions from the Director, I am making 10 insulated boxes required for the Department out of the excess deal wood planks and broken and rejected cork pieces. Eight of the ten boxes are indented for the Asst. Director of Fisheries (Madurai) and two for the Asst. Director (Fresh Water Biology), to be used for the transport of departmental feed fish.

/true copy

PK
22/3.

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INDUSTRIES & COMMERCE DEPARTMENT.

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From
The Director of Industries & Commerce, Chepauk, Madras.5.

To
The Secretary to Government, Agriculture Department, Madras.

Ref.No.2838 Y5/54 dated 12-4-54.

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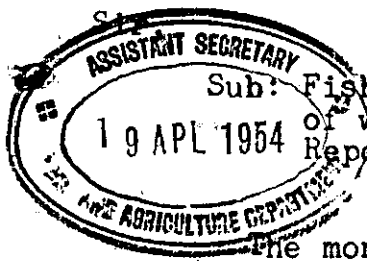


Sub: Fisheries - Installation of ice plants - Progress of work done by the Refrigeration Engineer - Report for the month of March,1954 - Submitted-.

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The monthly progress report of the Fisheries Engineer, Mangalore for the month of March,1954 is submitted herewith.

For Director of Industries & Commerce.

Enc: 1.

ak-15-4.

Copy of Monthly progress report of the Fisheries Refrigeration Engineer for the month of March, 1954.

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In G.O.No.228 Agriculture dated 17-2-54 I was permitted to go to Bombay to study the central Quick freezing plant sasson dock, Bombay. I left for Bombay on the 2nd March and arrived Bombay on 5th. I contacted Mr.Liauwals Superintending Engineer in charge of the plant and I was given facilities to study the plant in detail for 10 days from 5th to 14thMarch.

I studied in detail all the Engineering aspects of running and maintaining the cold storage plant. Detailed sketches were taken by me of the Ammonia piping. Electric wiring, water lines, etc. I was at the control of the factory for 1/2 a day and I myself started and brought two compressors to load. The shift Engineer in charge explained to me in detail the adjustment of pressures, how to purge air, how to trouble shoot and the remedy for the usual troubles encounted in a running cold storage machinery. They also told me that some of the minor techniques adopted by them were found later on by experience to be unsuitable. I have made special note of them (The details of these I have sent in my reports to Government and in the joint technical report of Fisheries Refrigeration Engineer and Executive Engineer to the Chief Engineer Building) and all these will be either avoided in our factory or improvements made on them.

On the freezing and management side, I gathered valuable information regarding tariff, demand, economics etc., from Mr.Kallekar, the Manager of the factory. He has explained to me the various problems that have been encountered by him and has given me vital suggestions. Since specially freezing is comparatively a new line, various arrangements have to be adopted to local conditions and improvements can only be attained through actual experience. The result of the experiences of the Bombay plant is very useful to us. I have taken valuable notes about the economic and the management side also.

I met Messrs.Volkart Brothers Engineers and pressed them for early deputation of their Erector. I met Sir Julius Montero one of their erectors earmarked for our job. I was told that the agreement between Volkarts and P.W.D. was very mearly completion.

I saw several other cold storages like Central Ice and Cold storage, city ice and Cold storage; Municipal Cold storage crawford market etc., and I met and discussed with the Managers and Engineers, the Engineering and economic aspects of cold storages. I met the Director of Fisheries, Bombay; Deputy Fisheries Development Advicer, Managing Director, Bombay fishermen cooperative society etc. and gathered from them all information regarding fisheries in General and cold storages.

I reached Madras on the 16th and met the Director and Deputy Directors and discussed with them the programme of erection and how to expedite the same. I met Electrical Engineer(General) at Madras and requested them to give priority for the execution of the work of internal electrification of Mangalore plant.

Agreement being signed by P.W.D. and Volkart Brothers, Mr.Julius Montero, Volkarts Erector arrived Mangalore on 27-2-54 and the erection workwent on in full swing from 29-2-54. Several skilled and nonskilled labourers are now being employed and the work at Mangalore is progressing fast.

The Evaporative condensor was shifted in section to the place of erection all conponents were erected in position. The motor and belt drive was fixed and adjusted and the erection of the Evaporative Condensor is complete.

Platform over the ice tank is being made by the carpenters. The air ducts in the freezing tunnel are being assembled.

The various compressors and motors were shifted to the various

places of erection and the foundation chipped and got ready and the compressors are placed over their foundations and they are being aligned.

Ammonia piping is also just started. Progress is being maintained and every effort is made to speed up the completion of erection.

Sd/. M. JAYARAJ
Fisheries Refrigeration Engineer.

Department of Industries & Commerce.

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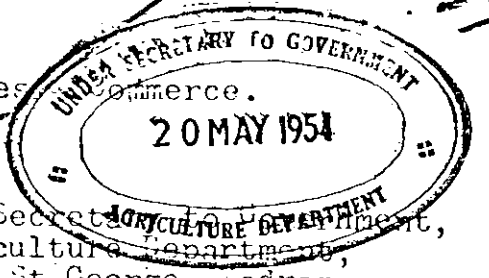


From
The Director of Industries & Commerce,
Chepauk, Madras.5.

To
The Secretary to Government,
Agriculture Department,
Fort St.George, Madras.

Ref.No.Fdl.12 Y5/54 dated 17-5-54.

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Sir,

Sub: Fisheries - Installation of ice plants - Progress of work done by the Refrigeration Engineer - Report for the month of April, 1954 - Submitted-.

Ref:

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The monthly progress report of the Fisheries Refrigeration Engineer, Bangalore for the month of April, 1954 is submitted herewith.

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19-5

For Director of Industries & Commerce.

Enc: 1.

ak.19-5.

Copy of Monthly Progress Report of the Fisheries Refrigeration Engineer, Mangalore for the month of April, 1954.

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Volkarts erector arrived at Mangalore on 29th April, 1954, and the erection work was respeeded up. Since the erector arrived the following work has been completed.

MANGALORE PLANT. Evaporative condensor erected and completed. The compressors xx were aligned and mounted on foundation and grouted. The motors are also mounted on foundation and are being aligned. The clamps for the oil seperators were grouted. The erection main ammonia lines of the and 71/2x-71/2 compressors were started. The liquid traps were mounted on foundation. The ammonia receiver was mounted on foundation.

The ceiling coils were suspended with hooks on the ice storage room.

The surge drum and the float valve and the other ammonia lines assembly was mounted on the 15T6 diffuser. The surge drum and the float valve with the hand expansion valve and other ammonia lines mounted on 15Q2 diffusers. The surge drum assembly with the float and hand expansion valve with all its ammonia lines etc., was completed for the two 15Q6 diffusers, in the freezing tunnel.

In the freezing tunnel the cork partition was opened and the G I ducts supplied were assembled and they were mounted on the freezing tunnel with the grillers on the sides. The chepping for the track for fish trucks completed and the track will be completed soon.

The ice crane was fixed after welding the girders and the ice crane erection is nearly complete. The platform over the ice tank is assembled and xxx this work will be completed soon.

CALICUT PLANT. The erector moved to Calicut Plant and there also the following works were finished.

The condenser unit was shifted to the place of erection in parts and assembled them completely. The compressors are all mounted over the foundations aligned and grouted.

The GI ducts pieces were assembled to form the ducts xxxxxx and the cork board partition was chipped open. The erection of ducts is in progress

The ceilingcoils are suspended in the ice storage room.

The track for the truck was chipped and the angle iron for the track was bent to shape and the fixing of the track in concrete has to be attended to.

The xxx 15 M6 cold diffuser was mounted on hanger hooks in the preparation room.

The surgexx drum and the valve connections and the ammonia lines assembly to the 15 T6 was done and completed. The surge drum and valve connection to the other diffusers are in progress.

The ice crane was erected after welding the girders and the erection of the same is completed. The brine agitator was fixed to the ice tank. Now the ammonia lines are in progress and it was decided that the Calicut plant should be completed first and then the erector has to move to Mangalore.

Mr.Rau, Volkarts Refrigeration Engineer was brought and the Executive Engineer discussed with Sri Rau about the new position of the ammonia receiver and the switch board at Mangalore plant and so also the various Electrical andmechanical problems were discussed. Mr.Rau visited the Calicut plant also.

The Director of Fisheries inspected the Mangalore plant on 5-4-54 and the Deputy Director (Inland) visited the Mangalore plant on 30-4-54.

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Department of Industries & Commerce.

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From
The Director of Industries & Commerce,
Chepauk, Madras.5.

To
The Secretary to Government,
Agriculture Department,
Fort St.George, Madras.

Ref.No.Pdl.12 Y5/54 dated 16-6-1954.

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UNDER SECRETARY TO GOVERNMENT
19 JUN 1954
AGRICULTURE

Sir,

Sub: Fisheries- Installation of ice plants - Progress of work done by the Refrigeration Engineer - Report for the ~~mark~~ month of May,1954 - Submitted

...

The monthly progress report of the Fisheries Refrigeration Engineer, Mangalore for the month of May,1954 is submitted herewith.

I have already addressed Government for sanctioning a loan of Rs.25,000 to the Mangalore Electric Supply Co., to expedite the work.

18/6

For Director of Industries & Commerce.

Enc: 1.

ak-17-6. 17/6

Monthly Progress Report of the work done by Fisheries Refrigeration Engineer, Mangalore for the month of May, 1954.

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The Erection work of the Ice factory cum cold storage plant at Mangalore and West Hill was in progress during the month of May and the Fisheries Refrigeration Engineer helped the Erector in the erection work. The work was concentrated on the Calicut plant with a view to complete the Calicut plant first and then to move over to Mangalore where ammonia piping is the bulk of work not left over.

On second week of May I was called to Madras to workout the lease conditions in case the plants are to be leased out, and the depreciation, running cost, interest on capital as well as the conditions of leasing out etc. were worked out in consultation with the Deputy Director of Fisheries, The Joint Director of Industries and Commerce and Accounts Officer of the Department of Industries and Commerce. I also met the Electrical Inspector to Government to discuss about the finalisation of the supply agreement for the West Hill plant and also about the loan that the Mangalore Electric Supply Company had asked for. After the Electrical Inspector approves the supply agreement for West Hill the same will be executed. Regarding Mangalore plant the Government has to be addressed for a spdcial loan and I understand the Central Office is taking necessary action regarding this.

Work done at West Hill and Mangalore.

At West Hill the compressors were all mounted and grouted and the motors also are mounted, aligned and grouted. The discharge ammonia lines were taken from the discharge valves to check valve oil seperators globe valves to the Evaporative Condensor. The booster discharge ammonia line is connected to the flash cooler which was mounted on a concrete foundation. From the flash cooler, connection was taken to the liquid trap and then to the auction header of the other compressors. The auction line inside the plant room also is completed with the necessary valves scale traps etc. The two other liquid traps are mounted on foundation and connected. The ammonia receiver is mounted on semicircular foundation blocks. The race way coil is tested with air compressor and descended into the ice tank and the accumulator is fitted with the floatvalve. All the ammonia pipe lines are nearly completed in the plant room.

The float valve connections with the surge drum is completed to the 15T6, 15 Q2, and the two 15Q6 diffusers. The suction line has been taken up to the Frozen fish storage.

In the freezing tunnel the air ducts are assembled out to size and erected with necessary adoptions and the side air grills being fixed.

The angle iron track for fish trucks has been welded and embedded in concrete and this work is complete.

The ice crane is complete with all its track, trolley and lifting tackle.

Necessary brackets and special sockets for the various thermometers have been made and grouted brackets for clamping the ammonia pipe are also being made and being grouted. The clamps for starters are being made.

I have worked out all the requirements of cables for wiring the various motors and starters from the switch board and submitted it to Executive Engineer for approval. As soon as it is approved the work on wiring of the motors will be taken up.

G.I.ducts to be connected to the evaporative condensor is being made by tin smiths. The coiling coils in the ice storage and their headers are suspended and levelled.

At Mangalore, the Ice crane was completed with the track, truck and the lifting tackle etc. The wooden platform over the ice tank is completed and the ice harvesting platform is also nearly complete. The motors in the plant room are aligned with the compressors already mounted. The air ducts in the freezing tunnel is nearly complete. The bulk of the remaining work regarding Mangalore plant is the ammonia piping.

After completing the Erection of West Hill Plant, the Erector will move to Mangalore to complete the erection work there.

The Hon'ble Minister for Agriculture and Fisheries visited the Mangalore Plant on 22-5-54 and was taken round the plant.

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DEPARTMENT OF INDUSTRIES & COMMERCE.

From:
The Director of Industries & Commerce, Chepauk, Madras.

To
The Secretary to Government,
Agricultural Department, Fort.St.George,
M A D R A S.

No.Pdl,12Y5/54, dated, 15th July 1954.

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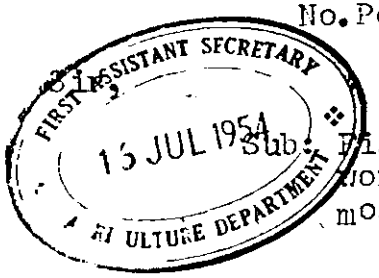


Sub: Fisheries - Installation of ice plants - Progress of work done by the Refrigeration Engineer - Report for the month of June-54 submitted.

99491

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The monthly progress report of the Fisheries Refrigeration Engineer, Mangalore, for the month of June 1954 is submitted herewith.

P 35 below.

for Director of Industries & Commerce.

MLI/15/7.

S.O 15/7

Office of the Fisheries Refrigeration Engineer, South Kanara, Mangalore.
Dated 2-7-54.

Monthly Progress Report of the work done by Fisheries Refrigeration Engineer, Mangalore for the month of June 1954.

The work for the month of June was concentrated mainly at Calicut, with the erector working there, with a view to complete the Calicut factory first and then to move over to Mangalore where ammonia piping is the bulk of work left over.

The bulk of the work done during the month of June was welding joints and pipe joints. About 700 welded joints and about 500 threaded joints were finished till the end of month.

Calicut plant:

Plant room:- Ammonia piping was continued. The liquid injection connections to the liquid traps, flash cooler etc. completed. The liquid line, the subcooled liquid line were laid and is nearly complete. A masonary wall was built adjoining the ice tank as per plan and the Armstrong gas purger was fixed on the wall with its expansion valve etc., completely connected. A hot gas defrosting line was connected to the ceiling coils to distroot the deposite of frost with hot gas from compressors. Main pipes to the oil seperators with valves completed. Safety cut out valves are fixed and the safety lines are laid. Suction lines, discharge lines, liquid lines and subcooled liquid lines with the various inter connections were all completed. The ammonia piping of the plant room is completed very nearly.

Starters were fixed in position and the grid resistances were suspended near the ventilators for use with starters for 30 H.P. and 40 H.P. motors.

All sockets and brackets for the various thermometers etc., were grouted so that the measuring instruments may be readily mounted.

All the suction, discharge and the liquid lines to the various cold storage rooms connected to the various diffusers were completed nearly. The Solenoid operated thermometric valves are fitted to 1 to 6 diffusers and the ceiling coils. Thus the entire ammonia lines are nearly complete.

In the freezing tunnel the work of fixing the grills and ducts are nearing completion and the duct for the condenser is also nearing completion.

The two 5 H.P. water pumps were erected in the pump house near the well for supply to the factory.

Towards the third week of the month I was sent to Madras by the Executive Engineer to purchase 37/.072 V.I.R. cables required for wiring the 40 H.P. motor which was not available readily. I have secured the same through rate contract through the Joint Director of Industries and Commerce and booked the same as well as other cables required to West Hill so that wiring of the motors can be taken on hand immediately. The wiring of motors from the switch boards to the various motors and starters has been started and is expected to be over within 15-7-54. The insulation of the pipes is started. The system will be tested with pressure within two weeks after successfully testing it, and on completion of wiring and the water lines, the plant will be ready for charging and test run.

M Tayaral
2-7-54
Fisheries Refrigeration Engineer.

Submitted to the Director of Industries & Commerce through the Executive Engineer. Advance copy to Director of Industries & Commerce, Madras.

DEPARTMENT OF INDUSTRIES AND COMMERCE.

From
The Director of Industries
and Commerce, Chepauk,
M A D R A S.

To
The Secretary to Government,
Agriculture Department,
Fort St. George, Madras.9.

Pdl.-12-Y5/54, dated 16-8-1954.

Sir,

Sub: Fisheries - Installation of ice plants - progress of work done by the Refrigeration Engineer Report for the month of July, 1954 - submitted.

109363
1813

---oOo---

The monthly progress report of the Fisheries Refrigeration Engineer Mangalore for the month of July, 1954 is submitted herewith.

P.S. below

FIRST ASSISTANT SECRETARY
21 AUG 1954
AGRICULTURE DEPARTMENT

For Director of Industries and Commerce.

So 19/8 QM 19/8

The Monthly Progress Report of the work done by the Fisheries Refrigeration Engineer, Mangalore for the month of July, 1954.

During the month of July the Refrigeration Engineer worked with the Erector of M/S Voltharts and the work was concentrated at Calicut and the Erection and testing of the Calicut plant is completed and the plant is now ready for charging and trial run.

Calicut Plant - Details of work.

Ammonia piping :- The entire Ammonia piping was completed with about 270 welded joints and about 700 threaded joints. Pump out connections for the various cold diffusers as well as all the odd ammonia connection were completed. The Ammonia pipes were all supported with suitable clamps to prevent them from vibrating while working. All high pressure and low pressure ammonia guages as well as oil gauges were fixed to the compressors. receivers, diffusers etc. with suitable pipe connections and supports. Liquid indicator for the purger and receiver were fitted.

The duct for the condenser and 1576 diffusers were completed and erected in position.

Power cables: Power cables from the switch board to the various motors and starting gear were laid.

The compressor motors were wired along with the starters grid resistances and drum controls. The motors working in cold storages were wired with conduct wiring. The various protection devices such as the high pressure cut outs, solonoid valves. Thermostats etc. were wired. Wiring with overhead weather proof wiring was completed for the pump motors in the pump house. Power wiring is nearly complete.

Water supply piping: The suction and delivery piping of the pumps from the well to the ove head tank completed. The suction and delivery of the circulating 1½ H.P. pump completed. The water connection to the condenser, the compressors, the ice tank, washing trough, to defrosting sprays of diffusers etc. are all over. The entire water lines will be completed within a few days.

Flooring: The flooring for the plant room is laid.

Plat-form: Plat-form for the ice tank, for can dumper etc. completed

Freezing tunnel. The rails are laid in freezing tunnel and the cork insulation was plastered and completed. Dampers were fitted in the suction of the diffussers. The Dipping arrangements for forozen fish are being done.

Testing: The entire Ammonia lines were tested with 150 lbs. per sq. inch of air pressure and the leaks found were rectified. The high pressure lines were then tested with 250 lbs. per sq. inch of carbon-di-oxide and were found leak-proof.

Mangalore.

Internal Electrification: The lighting and power mains up to the switch board was done by the Electrical Engineer (General) and is nearly complete.

Internal Water Supply: The water supply lines are in progress.

The Erector and Welder will move over to Mangalore in the first week of August and the left over work at Mangalore will be taken on hand and completed.

/True copy/

Submitted to the Director of Industries and Commerce through the Executive Engineer.

Advance copy submitted to Director of Industries & Commerce, direct.

41

Department of Industries & Commerce.

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From
The Director of Industries & Commerce,
Chepauk, Madras.5.

To
The Secretary to Government,
Agriculture Department,
Fort St.George, Madras.9.

Ref.No.Pdl.12 Y5/54 dated 4-10-54.

...

Sir,

FIRST ASSISTANT SECRETARY 5-OCT 1954 AGRICULTURE DEPARTMENT

Sub: Fisheries - Installation of ice plants - Progress of work done by the Fisheries Refrigeration Engineer- Report for the month of August,1954 - Submitted.

... --

The monthly progress report of the Fisheries Refrigeration Engineer, Mangalore for the month of August,1954 is submitted herewith.

121272

For Director of Industries & Commerce.

Enc: 1.

ak-4-10.

Monthly Progress Report of the work done by the Fisheries Refrigeration Engineer, Mangalore for the month of August, 1954.

...

During the month of August the Refrigeration Engineer worked with the Erector and the work was mainly at Mangalore, the Erector and the Welder having moved to Mangalore.

Mangalore Plant:- Details of work:

Plant Room: Motors were all aligned and grouted. The pace coils were tested with air compressor for leaks; and was found leak proof for 150 lbs. pressure.

The agitator motor fixed after casting the foundation.

The flash cooler and the three liquid trays were erected in their position. The oil separators were also erected.

Ammonia Piping: The discharge lines of the Booster compressor and the three other compressors upto the condenser were completed, The liquid line from the receiver is started. The sub-cooled liquid line in the plant room is progressing. The suction line is taken up to the frozen fish storage. The injection lines to the flash cooler is complete.

Freezing Tunnel:- In the freezing tunnel the partion work is progressing. The rail for the truck inside freezing tunnel is laid.

Track in preparation room: Track for fish trucks in preparation room are being laid with concrete.

Insulation of pipes: Moulds are being made to insulate the pipes after testing.

Clamps and supporters: Supporters for the pipes are being made and the clamps for electrical starter, thermometres, temperature controllers are being made and grouted.

Water Piping: The Internal water piping is in progress and the major portion of this work is complete.

Electric wiring: The plans for wiring to the motors with full details of cable requirements and method of wiring have been drawn by the Fisheries Refrigeration Engineer and submitted to Executive Engineer.

Calicut Demonstration:- A conference of the local fishermen was called at West Hill plant by the Assistant Director of Fisheries (Malabar) and the entire factory was demonstrated to the fishermen on 13-8-54 and it was explained by the Fisheries Refrigeration Engineer to the fishermen how they could make the best use of the facilities offered at the cold storage. It was requested that the fishermen should bring all their catches to the cold storage during the trial run. The insulated van was also demonstrated to the fishermen and they were requested to utilize the fish van.

Finishing:- The finishing of the cold storage such as painting, white washing etc., are being attended to. The starters were checked and the door gaskets are fixed. With the availability of low tension power, the West Hill Cold Storage Plant is ready for charging and test run.

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45

DEPARTMENT OF INDUSTRIES AND COMMERCE

From
The Director of Industries
and Commerce, Chepauk,
Madras.

To
The Secretary to Government,
Agriculture Department,
Fort St. George, Madras.

125085

No. Pdl. 13- Y.5/54 dated 15.10.54.

Sir,

Sub: Fisheries - Monthly Progress Report of the Fisheries Refrigeration Engineer, Mangalore for the month of September 1954 - submitted.

The monthly progress report of the Refrigeration Engineer, Mangalore for the month of September 1954 is submitted herewith.

19/10/54

For Director of Industries and Commerce.

Crk.10.10.

Encl. 1

18/10

DEPARTMENT OF INDUSTRIES AND COMMERCE

From
The Director of Industries and Commerce, Chepauk, Madras.

To
The Secretary to Government, Agriculture Department, Fort St. George, Madras.

No. Pdl. 13- Y.5 54 dated 15.10.54.

Sir,

Sub: Fisheries - Monthly Progress Report of the Fisheries Refrigeration Engineer, Mangalore for the month of September 1954 - submitted.

The monthly progress report of the Refrigeration Engineer, Mangalore for the month of September 1954 is submitted herewith.

Crk.16.10. For Director of Industries and Commerce.

18/10

Encl. 1

FISHERIES SECTION

MONTHLY PROGRESS REPORT OF THE WORK DONE BY THE FISHERIES REFRIGERATION ENGINEER, LANGALORE, FOR THE MONTH OF SEPTEMBER 54.

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During September the Fisheries Refrigeration Engineer, worked with the Erector of Volkarts mostly at Mangalore, the West Hill plant being complete and ready for charging.

Detail of work:

Mangalore Plant:

Plant Room: Erection of motors, compressors, flash cooler, liquid traps, oil seperators and purger are all complete and the ammonia connections interconnecting these apparatus are also nearly complete. The raceway coils were discended into the ice tank and the accumulator erected.

Ammonia Piping: In the plant room the discharge line of the compressors, the suction line of compressors and the subcooled and hot liquid line completed. The liquid receiver and condenser connections also complete. The liquid lines are taken with necessary thermostatic valves to the ice storage ~~ee~~ cieling coils and 15 MG diffusers. The liquid connection to the 15Q 6 diffusers are nearly over. The pump out connections to the various units are in progress. On the whole ammonia piping is nearing completion.

Freezing tunnel: Freezing tunnel work is nearly complete.

Track in preparation Room: Starters are being fixed with suitable clamps and the resistor clampsare completed.

Water piping: Internal water piping is complete. The permanent external water feeding line is pending and this has to be done by P.W.D.

Electric wiring of motors: Tenders are being called by P.W.D.for completion of this.

With the completion of the remaining minor ammonia connections the plant will be tested for pressure.

Calicut Plant: The final finishing work such as painting, white washing of the West Hill plant is being attended to and the Electrical equipment is being tested and the motors are being backed. It is proposed to charge the plant with Ammonia during the beginning of October for a trial test.

Visits: The Electrical Engineer (General) visited on 13th the Mangalore plant and on 15th the West Hill plant.

The Deputy Director (Marine) visited the plant along with Personal Assistant to the Director of Industries on 24-9-1954.

Towards the last week of September I was called to Madras to attend a meeting at the Secretariat for discussions to fix up terms and conditions of leasing the plants.

FISHERIES REFRIGERATION ENGINEER.

Submitted to the Director of Industries through the Executive Engineer.

47

Department of Industries & Commerce.

From
The Director of Industries
& Commerce,
Madras-5,

To
The Secretary to Government
Agriculture Department,
Madras-9.

No.Pdl.15-T.C.A.3/54, d. 15-11-54.

Sir,

Sub: Fisheries - monthly progress report for the month of the Fisheries Refrigeration Engineer, Mangalore for the month of October 1954 - submitted.

134090

The monthly progress report of the Fisheries Refrigeration Engineer, Mangalore for the month of October '54 is submitted herewith.

6 Sl Letters

X.X. Peter Devadas.
17.11.54
For Director of Industries & Commerce

Encl.1.
VR.16/11

Copy of Pdl.34/54, dated 8-11-54 from the Fisheries Refrigeration Engineer, Mangalore.

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Monthly progress report of the work done by the Fisheries Refrigeration Engineer for the month of October 1954.

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1 Towards the end of September 1954 Director passed orders for conducting the test run of the West Hill plant and keep the plant running for a trial production and sales for one month. Accordingly I camped at West Hill and conducted the trial run of the plant in the presence of Public Works Department staff and the Drector from Messrs. Volkarts and I have submitted report to the Director. The plant was charged with Ammonia gas and the ice tank was filled with Calcium Chloride of specified specific gravity. The ice production unit was commissioned first and the first batch of ice was produced on 15-10-54. The trial production and sales commenced on 16-10-'54.

2 I contacted the local officers and had discussion with the fisheries officers of Calicut and nearby towns to chalk out a programme for sales of ice at Calicut and nearby stations connected with railway. I contacted several local and distant iced fish merchants to canvas for order for ice with the result now ice is being sent to places like Parapanangadi, Kadalundi, Badagara, Kanhangad, Kasargad and even upto Mangalore. I camped at important ice consuming centres and booked order for ice. The Govt. ice has now become popular in all coastal towns of Malabar and South Kanara.

3 The fresh fish storage facilities also were given to fishermen and though there has been moderate fishing in Kanhangad and Badagara side, at Calicut the fishery is very poor with the result the fresh fish storage facilities could not be availed of by the fishermen to a large extent.. But the initial utilisation however small, has educated the fishermen in modern preservation and when catches improve it is hoped that there will be maximum utilisation.

4 The sales of ice is improving day by day and during the trial production of the month the receipt from sales is expected to exceed the running expenditure of the plant and hence the plant will be kept running . The engineering management and the sales are all being looked after by me.

5 At Mangalore the erection work is completed and shortly the plant will be tested with air pressure.

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Department of Industries & Commerce.

From
The Director of Industries
& Commerce,
Chepauk, Madras-5.

To
The Secretary to
Government,
Agriculture Dept.,

No.Pdl.TCA3/54, d. 16-12-54

SECOND ASSISTANT SECRETARY
17 DEC 1954
AGRICULTURE DEPARTMENT

Sir,

152614

Sub: Fisheries - monthly progress report of Fisheries Refrigeration Engineer Mangalore - submission of.

I am enclosing herewith a copy of the monthly progress report of the Fisheries Refrigeration Engineer, Mangalore for the month of November 1954.

Encl.

For Director of Industries & Commerce.

Copy of ref. No.54/54, dated 8-12-54 received from the Fisheries Refrigeration Engineer, Mangalore.

Sub: Monthly progress report of the work done by the Refrigeration Engineer for the month of November '54.

The trial production and sales of ice at West Hill plant started on 15-10-54 and the entire plant was tested for satisfactory working with the presence of P.W.D. and the Volkart's Erector. The ice production and sales were continued as an experimental measure and the ice was sold to fishermen and the Refrigerated space hired out them.

Effective propaganda was given to the ice by contacting several fish merchants local and of places all over the coast. The Govt. ice has now become very popular and from 15-10-54 to 14-11-54 a total quantity of 776¼ cwts. of ice were sold. Ice has been despatched to places like Parapanangadi, Kadalundi, Badagara, Tellicherry, Etakot, Kanhangad, Kasaragod and Mangalore as per details enclosed.

There has been a total receipt of about Rs.1,600/- for the trial month and an expenditure of about Rs.700/- resulting in a savings of about Rs.900/- for the month from 15-10-54 to 14-11-54.

The continuance of the trial run from 14-11-54 to a further period of one month was sanctioned and the factory is now in its second month of production. During this period the factory has successfully overcome the various handicaps such as lack of publicity lack of proper taste for cold stored fish and the delay in the commencement of peak fishery season in Malabar. In spite of all these now, the working of the factory has been put to a considerable stable state. The Government ice is becoming more and more popular

and hence the demand for ice on the increase.. Fishermen are slowly realising the advantages of cold storage and the catches are being preserved in the cold storage.

During the second month of trial the demand for ice was so strong sometimes even exceeding the production that for the period from 15-11-1954 to 30-11-1954 a total of 1,287 ~~XXX~~ cwts. of ice has been sold and a total revenue of about Rs.2,600/- has been realised. Receipts exceed the running expenditure by a large margin.

The insulated van gifted under T.C.A. was hired out to local fishermen for conveyance of ice to markets and icing centres. I have addressed the Southern Railway authorities to grant quarter parcel rate for ice booked by Govt. ice factory to various fishing towns so that this may give a fillip to the iced fish trade of the West coast.

The factory is being put to regular working and the various safety precautions etc. are being provided. The mechanics are being trained for maintenance of the plant and the fishermen are being educated in the modern methods of preservation of fish.

The Mangalore plant is at its last stage of erection and all the welding joints are now complete and the plant is ready for air pressure test. After completing the electric wiring and arranging for electric supply the plant may be charged for trial run.

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Details of the sales of Ice distributed to various places from 15-10-54 to 14-11-54.

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| | |
|---|---|
| Parapanangadi | 52 cwts. |
| Kadalundi. | 13 cwts. |
| Badagara | 114 cwts. |
| Tellicherry | 7 cwts. |
| Etakot | 16 cwts. |
| Payyanur | 2 cwts. |
| Kanhangad | 17 cwts. |
| Kasaragod | 6 cwts. |
| Mangalore | 41 cwts. |
| Calicut(local) | 508¼ cwts. |

55

Department of Industries & Commerce.

From
The Director of Industries
& Commerce,
Madras-5.

To
The Secretary to Government
Agriculture Department,
Fort St. George, Madras-9.

No.Pdl.32-Y3/55, dated 15-1-55.

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4780

Sir,

FOURTH ASSISTANT SECRETARY
20 JAN 1955
AGRICULTURE DEPARTMENT

Sub: Fisheries - monthly progress report of Fisheries Refrigeration Engineer, Mangalore for December 54- submitting of.

--

I have the honour to submit herewith a copy of the monthly report of the Fisheries Refrigeration Engineer, Mangalore for the month of December 1954.

19.1

For Director of Industries & Commerce.

Encl.1.
VR.17-1.

Enclosure.

Monthly progress report of the work done by the Fisheries Refrigeration Engineer for the month of Dec.54.

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The trial production and sales of ice was continued at West Hill for the second month i.e., from 15-11-54 to 15-12-54 and was continued for third month from 15-12-1954 to 15-1-1955. During the second month of trial the sales were very good and a day's sales has reached a maximum of about 7 tons against the daily capacity of 4 to 5 tons. There has been a total receipt of Rs.5,824-1-9 during the second month of trial against the total running expenditure of about Rs.1,402/- driving thereby a savings of Rs.2,482-1-0. The engineering as well as management side of the cold storage was under the Refrigeration Engineer.

The plant was cleaned, white washed etc. in preparatory to inauguration and the various safety precaution measures work was taken up. The daily maintenance work of the factory such as charging lubricating oil, replenishing grease etc. changing of condenser were all attended to.

The insulated van was hired out to private fishermen for transport of ice.

The Mangalore plant erection was completed and the plant was tested an air pressure with temporary connections to motors. The plant was charged with Ammonia and the plant was tested section by section. Only the ice making section, the

6.3

fresh fish storage room was tested. The quick freezing section will be tested after the completion of the permanent motor wiring.

Towards the latter part of the month preparations were made for the inauguration of the plant by the Hon'ble Minister for Agriculture.

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Department of Industries & Commerce.

From
The Director of Industries and Commerce,
Chepauk,
Madras-5.

To
The Secretary to the Government,
Agriculture Department,
Fort St.George,
Madras.

No.Pdl.32 Y3/55 dated 21-2-55.

Sir,

Sub:-Monthly Progress report of Fisheries Refrigeration Engineer, Mangalore.

- - - - - - - - - -

The monthly progress report of the Fisheries Refrigeration Engineer, Mangalore is submitted herewith.

1. P 67 below

for Director of Industries and Commerce.

Sam/21-2-55.

Pde. 5/55

MONTHLY PROGRESS REPORT ON WORK DONE BY THE FISHERIES REFRIGERATION ENGINEER FOR THE MONTH OF JANUARY 1955.

****

Calicut: The West Hill plant was inaugurated by the Hon'ble. Minister for Agriculture on 7-1-1955 and the Refrigeration Engineer arranged for the various things connected with inauguration. The entire plant was demonstrated to the public gathered and the advantages of the cold storage was explained to them.

The plant worked in its trial production run for the third and fourth month and the sales of ice etc. were continued. In the third month of trial the receipts from sale of ice etc. was Rs.2,095-4-0. The plant worked satisfactorily during the period and the engineering as well as the management of the plant was looked after by the Refrigeration Engineer.

The various safety precautionary measures are being equipped to the factory and the mechanics are being trained for the proper maintenance.

Mangalore: The Mangalore plant was run on a test run with only ice making section commissioned and the various parts are tested for performance. The permanent electric wiring of the motors, the insulation of the ammonia pipes and the other pending items of erection work is being looked after. After completing the permanent electric wiring, the freezing section of the plant will be put to test run. But the preliminary tests of the various units are over.

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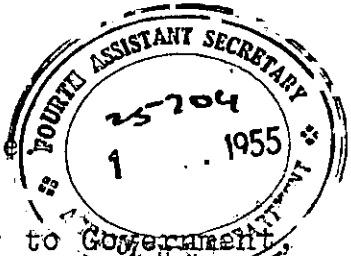
The ice making section was tested for satisfactory working. The temperature of the ice storage was brought down to specified storage temperature and also the temperature of the fresh fish storage was brought to the required temperature. The testing of the freezing tunnel, and frozen fish will be taken up after the completion of motor wiring which is being done now.

(Sd) Illegible
5-2-55
Fisheries Refrigeration Engineer.

Submitted to the Director of Industries and Commerce, Madras.

True copy Illegible 16-2-55

Department of Industries & Commerce.




69

From
The Director of Indu tries &
Commerce, Madras-5.

To
The Secretary to Government,
Agriculture Depa tment,
Fort St. George, Madras.

No. dl. 32 - Y3/55 dated 30.3.55.

Sir,

Sub: Monthly progress report of Fisheries -
Refrigeration Engineer - Monthly Progress
report for February 55 - submit ed.

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The monthly progress report of the Fisheries Refrigeration Engineer, Mangalore is submitted herewith.

For Director of Industries & Commerce.

Encls.1.

rk/31.3.

L. 824 —70,10,558—20-1-54

186

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FISHERIES Department | Received ——— Registered ———

From (Name) Sri M. Jayaraj, B.E.,
Designation Fisheries Refrigeration Engineer,
Station Mangalore 2 (S.K.)

To
The Director of Industries & Commerce,
Madras.

Enclosures: No. 34/54, Dated 2-3-55 195

Sir,

Sub:- Monthly progress report of the Fisheries Refrigeration Engineer, Mangalore for the month of February 1955 - submitted.

---oOo---

WEST HILL

During the month of February '55 the working of the Ice plant at Calicut was continued. The production of ice, sale of ice etc., were all looked after by the Fisheries Refrigeration Engineer. From the 15th of February the plant was running in its 5th month of trial. The mechanics were being trained for proper maintenance of the plant and safety precaution were installed like Busbar lights, alarm bells etc. Towards the end of the month, the following general maintenance were attended to (1) cleaning the condenser (2) renewing the lubricating oil charge (3) replacement of weakened gaskets etc. General improvements in the compound like raising lawns, gardens etc., were attended to.

MANGALORE

The final items of erection work are being attended to. The permanent wiring of the 30 and 40 H.P. motors are being supervised. The lagging of Ammonia lines are being pushed through. The freezing section is being tested. Discussions if the permanent water supply from city club has to be taken up or not were held at Mangalore on 9-2-55 with Deputy Director of Fisheries (Inland) Executive Engineer (P.W.D.) Resident Engineer etc. The question of taking a permanent L.T. supply was also discussed. The Mangalore plant was inspected by Deputy Director (Inland) on 9-2-55 and the Calicut plant was inspected by the Director of Industries & Commerce on 18-2-55.

It is proposed to start the mangalore plant also as an ice making unit on trial very soon.

3.3.55.

DJ/2.3.

Fisheries Refrigeration Engineer.

Department of Industries and Commerce.

FOURTH ASSISTANT SECRETARY
13 APR 1955
AGRICULTURE DEPARTMENT

From
The Director of Industries and Commerce, Madras 5.

To
The Secretary to Government, Agriculture Department, Fort St George, Madras.

oooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo

No. Pal 32 (3/55 dt. 11.4.44.

Sir,

29108 Sub: Monthly progress Report of Fisneries Refrigeration Engineer Monthly Progress report for March '55 submitted.

- - -

The monthly progress report of Fisheries Refrigeration Engineer, Mangalore for the month of March 1955 is submitted herewith.

for Director of Industries and Commerce.

njr/12.4.

75

copy of Pdly 5/55 dt. 1.4.55 from the Fisheries Refrigeration Engineer.

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THE MONTHLY PROGRESS REPORT OF FISHERIES REFRIGERATION ENGINEER FOR THE MONTH OF MARCH 1955.

- - -

Calicut Plant: During the first week, the following maintenance work was carried on to the plant. The condenser was opened and the coils were thoroughly cleaned and the spray nozles were claimed and chokings in the nozles were removed. The belt and motor drive is checked. The compressor lubricating oil was replaced with fresh charge in all units. The oil seperators were drained of the oil sludge. All the belt drives were checked and tightned. Calcium chloride brike was strengthened by the addition of calcium chloride. The coils in the ice storage was defrosted.

The fishing season was poor during the month and hence the sales of ice was slack. The plant started its 6th month of trial production run from 15th March. During the peridd all week work connected with the factory, engineering as wellas management side was looked after by the Fisheries Refrigeration Engineer. In addition, in order to develop sales the Refrigeration Engineer camped at Tanur an important fishing centre to secure order for ice.

MANGALORE PLANT: At Mangalore the arrangements for permanent low tension supply is being made. The plant is tested, section by section and the electric wiring of motors is nearly complete. The insultationof ammonia pipes is in progress. But for the few finishing work such as distempering of cold storages, insultation of Ammonia pipes, painting, and certain other minor items, the plant is ready for trial production run and I have submitted proposals to the Director for conducting a trial production run of Mangalore plant just like that of Calicut plant for a initial period of 3 months commencing from May I st 1955. The P.W.D. after completion of the work may hand over theplant by the end of April 1955.

/true copy/

Department of Industries and Commerce.

From
The Director of Industries and Commerce, Madras 5.

To
The Secretary to Government,
Agriculture Department,
Fort St. George, Madras.

oooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo

No. Pdl:32 Q2/55 dt. 11.5.55.

FOURTH ASSISTANT SECRETARY 19 MAY 1955 AGRICULTURE DEPARTMENT

Sir,

Sub: Monthly progress report fisheries Refregeration Engineer-Monthly progress report for March '55 submitted.

- - -

The monthly progress Report of Fisheries Refregeration Engineer, Mangalore is submitted herewith.

for Director of Industries and Commerce.

njr/16.5.

Enc:-1.

The Monthly Progress Report of Fisheries Refrigeration for the month of March 1955.

- - -

A. Calicut plant: During the first week, the following maintenance work was carried on to the plant. The condenser was opened and the coils were thoroughly cleaned and the spray nozzles were cleaned and any choking in the nozzles is removed. The belt and motor drive is checked. The compressor lubricating oil was replaced with fresh charge in all units. The oil seperators were drained of the oil aludge. All the belt drives were checked and tightned. Calcium chloride brive was strengthend by the addition of calcium chloride. The coils in the Ice Storage was defrosted.

The fishing season was poor during the month and hence the sales of ice was slack. The plant started its 6th month of trial production run from 15th of March. During the period all work connected with the Factory engineering as well as management sides was looked after by the fisheries Refreigeration Engineer . In addition in order to develop sales the Refrigeration Engineer comped at Tanur an important fishing centre to secure orders for ice.

B. Mangalore Plant: At Mangalore the arrangements for permanent low tension supply is being made. The plant is tested section by section and the electric wiring of motors is nearly complete . The insultation of amonia pipes is in progress. But for the few fisnihing work such as distempering of cold storage, insulation of Amonia pipes, painting, and certain other minor items the plant is reaay for trial prduction and I have submitted proposals to the Director for conducting a trial producting run of Mangalore plant just like that of Calicut plant for a initial period of 3 months commencing from May Ist 1955. The PLW.D AFTER completion of the work may hand over the plant by the end of April 1955.

- - -

/true copy/

Department of Industries & Commerce.

From
The Director of Industries and Commerce, P.B.No.425, Triplicane P.O., Chepauk, Madras-5.

To
The Secretary to Government,
Agriculture Department,
Fort St. George, Madras-9.

No.Pdl.32/92/55 dated 18-5-55.

Sir,

Sub: Monthly progress report of Fisheries - Refrigeration Engineer - Monthly progress report for April 1955 - submitted.

The monthly progress report of Fisheries Refrigeration Engineer, Mangalore for April 1955 is submitted herewith.

For Director of Industries and Commerce

Encl: 1

Krv/195.

Copy of Monthly Progress Report of the Fisheries Regrigeration Engineer, Mangalore for the month of ~~M~~ April 1955.

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No.R.C.5/55 dated 4-5-55.

Kollegal Silk Filatures:- Under orders of the Director, I proceeded to Kollegal to inspect the cold storage plant of the Government Silk filatures which was out of order. The plant was set right and completely overhauled and the boiler foreman attached to the silk filatures was given training in the maintenance of the regrigeration plant.

Adirampatnam plant:- During the second week of April, I inspected the 5-ton Diesel Ice plant lying at Adirampatnam. The plant has been idle for about 10 years and hence this requires complete overhauling. Since this requires special tools and ~~x~~ special experianced machanics I am going over to Adirampatnam again with one refrigeration mechanic working under me with special tools to overhaul the machinery.

Tuticorin: During the third week, I proceeded to Tuticorin where machinery parts of the 5 ton ice plant gifted under TCA had arrived. I was requested by the Assistant Director of Fisheries, Tuticorin to examine the packages and verify the contents. I have sent the report of the inspection of the packages to the Assistant Director of Fisheries, Tuticorih. I discussed with the Dy. Director (Marine) and the Assistant Director of Fisheries and local Municipal authorities regarding the selection of a site for the Ice plant and availability of protected water for manufacture of Ice. I submitted a report about this to the Director.

Kozhikode: The Ice plant at Calicut continued in its 7th month

p.t.o.

of trial production from 15-4-55. The fishing was poor as this is the off season and hence the sales of Ice were poor. The sales are expected to improve with the advent of prawn fisherv in May or June.

Mangalore: The Mangalore plant is in the last atages of completion of erection and test and is expected to be handed over to the Department by the end of May. The Government have been addressed to sanction trial production of this plant too and the orders of Government are expected. The finalisation of the permanent electric supply is in its last stage and is expected to be completed soon. When the orders for the trial run is obtained this plant two will start on its trial production run.

/true copy/

Krv/195.

55 Agric II

Memo 9716 C II/55-2 dt 27-6-55

Pl send 29/6/55

Sub:- Monthly progress report of Fisheries Refrigeration Engineer: Monthly progress report for May 1955: Reg.-reg.

The D.D.+e is requested to expedite the report mentioned above.

28/6

DO

The D.D.+e

29/6/55

28/6

27/6/55

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D... Wors

Date 15

S

Copy of letter No. Pdl. 5/55/56 dated 2-6-55 from the Fisheries Refrigeration Engineer, South Kanara, Mangalore to the Director of Industries and Commerce, Madras.

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13 JUL 1955
GOVERNMENT LAW DEPARTMENT CALICUT

Sub: Monthly Progress Report of the work done by the Fisheries Refrigeration Engineer, Mangalore for the month of May 1955.

eeeeeeee

CALICUT:

The trial production of the ice plant cum cold storage, West Hill continued in its eight month of trial run. The usual sales of ice were conducted and the storage space let out to Fishermen. Since the period under report is slack season for fish, the catches were dull. Still whenever those were catches there were demand for ice and storage space. The fishermen have by now taken well to ice for their preservation of catches and as a result of the cheap rate of ice at the Government ice factory there has been a remarkable increase in the number of petty iced fish merchants. Actual fishermen themselves have taken to iced fish trade and the actual fishermen are hence getting the real benefit of the cheap ice sold in the Government ice factory. It is anticipated, provided there be good catches, the utilisation of this plant will be much more during the next fishing season, after the monsoons.

MANGALORE:

At Mangalore the final items were completed in prepatory to handing over the plant. The cold storage rooms are destempered and the main building is white washed. The insulation of the ammonia pipes are completed and the insulation of the pipes were plastered with cement. The glazing tank dipping arrangements were completed. Asphalt lining for compressor foundation were laid.

The ice making section was continuously tested and the other rooms were tested for specified temperatures and the tests were satisfactory. Electrical connections were also completed. The water supply connection to the septic tank latrines were also completed during the month.

The plant is ready for being handed over except for the permanent water supply from city club tank and on receipt of the orders from Director it will be taken over early in June.

ADHIRAMPATNAM:

I camped during the third week at Adhirampatnam with a mechanic and the entire ice plant machinery lying there were checked. The parts were all cleaned and oiled and repacked neatly. The Ammonia compressors and the diesel engine of the 4 ton ice plant were dismantled and overhauled. A list of materials was prepared on spot. The inspection was made jointly with the Asst.Director of Fisheries (Tanjore) under whose charge the machinery parts now are. There is a proposal to dispose of this old plant in auction. The proposals for disposing of these in auction will be soon submitted to Director.

-/True copy/-

Endt. Pdl. 17 Q3/55-F, Office of the Director of Industries and Commerce, Chepauk, Madras, dated: 6-7-55.

Submitted to the Government Agriculture Department, Madras with reference to Government Memorandum No.9716 C.II/54-2, Agriculture Department dated 27-6-55.

P & S above

Mk.8.7. For Director of Industries and Commerce.

Copy of letter No.Pdl.5/55 dated 6-7-55 from the Fisheries Refrigeration Engineer, Mangalore to the Director of Industries and Commerce, Madras--5.

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Sub: Periodicals - Monthly progress report of the work done by the Fisheries Refrigeration Engineer, Mangalore for the month of June, 1955.

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CALICUT PLANT:

During the month of June, '55, the trial run of the West Hill plant was stopped in preparatory to handing over the West Hill plant to Bombay Ammonia And Refrigeration Company, Bombay from July 1st. The plant was given a general overhaul and painting etc and the ice cans, fish trucks etc., were cleaned and painted, all machinery wer lubricated and overhauled.

Complete list of machinery, building and tools and materials to be handed over to lessee were prepared in full details and a copy of the same is submitted to Director for incorporating the same in the agreement. All necessary arrangements to draw up fresh agreement between the lessee and the West Coast Electric Corporation for supply of power is made.

All the sections of the plant were run and the plant was handed over on 1-7-1955 to the lessee in good working order and acquittance obtained from them as per instructions of Director.

MANGALORE PLANT:

The Mangalore plant was taken over from P.W.D., and the tools used in the erection of the plants and some excess construction materials wer all handed over from the P.W.D., to this department.

Pending the provision of permanent supply to the Mangalore plant (for which action is being taken by the Electrical Engineer, (General) and Chief Electrical Inspector to Government), temporary supply was arranged for. The plant has been tested completely and proposals were submitted to Government for sanctioning the trial run of Mangalore plant also and the Government sanction is obtained.

Since now the monsoon is set in and the fishing is very poor, it is proposed to start the trial run in September or October, when the new fishing season will set in and this has been approved by the Director The machines will be kept run for short intervals off and on the keep them in good condition and the brine in the ice tank will be kept agitated now and then.

METTUR DAM.

I was instructed to go over to Mettur Dam to inspect the first T.C.A.. consignment to Mettur and to draw up proposals for installation of the plant in consulation with the Asst.Director of Fisheries (Mettur Dam). Accordingly, I visited Mettur and inspected the 20 insulated containers that were received. They were in good condition. Several sites were inspected for the installation of the plant and the site opposite the office was recommended for

P.T.O.

the Director's approval. The estimates for construction of building to house the plant were given to the P.W.D. for prepration. Therefore, the preliminaries for installation of T.C.A. plant allotted both for Mettur Dam and Tuticorin are being finalised.

FIRST ASSISTANT SECRETARY TO GOVERNMENT
17 JUL 1955.
6647

/true copy/

Endt. Pdl.17/Q3/55-F. Office of the Director of Industries and Commerce, Madras-5. Dt. 14-7-1955.

Submitted to the Secretary to Government, Agriculture Department, Fort.St.George, Madras.9.

16/7/55

rss.15/7/-. for Director of Industries & Commerce.

16/7

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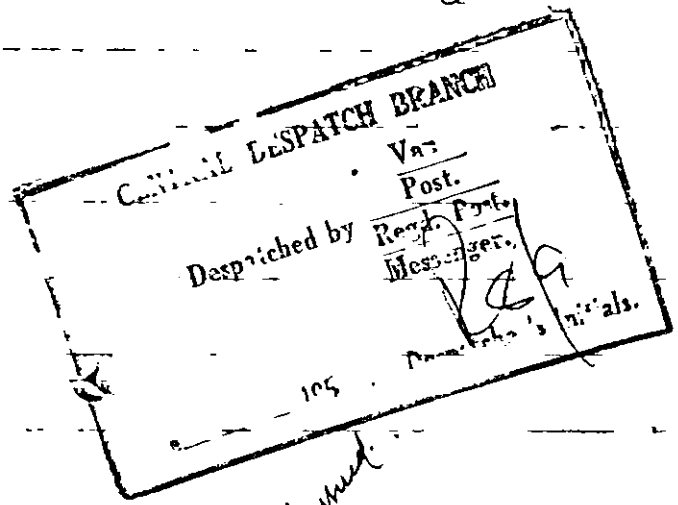
T. M




To

The Director of Industries and Commerce, Cherapunji

Sub: Fisheries. Dce-Comm- Cold-storage factories at West Hill and Mangalore - Progress report of the Fisheries Refrigeration Engineer for the month of July 1955

Please expedite the progress report of the Fisheries Refrigeration Engineer for the month of July 1955.

By order,

Section Officer

TO GOVERNMENT 8-SEP 1955 AGRICULTURE DEPARTMENT THIRD ASSTT.

Copy of letter No. Ind.1/55 dated 4th August, 1955 from the Fisheries Refrigeration Engineer, Mangalore-1.

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Sub: Monthly Progress report of the Refrigeration Engineer for the month of July, 1955.

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I submit the following report of work done by me during the month of July, 1955.

WEST HILL PLANT:

The west Hill plant was handed over on lease for 3 years from 1-7-55 to Bombay Ammonia Refrigeration Co., after taking a complete charge list according to the instructions of the Director. The machinery were all warmed and the plant was handed over in perfect working order with all the specified temperatures attained.

The Ice Crushing machine of the F.C.A. plant at Tuticorin was temporarily transferred to Westhill to be handed over to lessee. On the Ice Crusher for west Hill and Mangalore plants are secured, this ice crushing machine will be sent back to Tuticorin. Action is being taken by me to get two more ice crushing machines manufactured locally identical to the F.C.A. machine as import of this will cost the Government more and will cause delay. I have contacted the A.S.A. and Sons., Institute at Coimbatore for the manufacture of the ice crushers. According to instructions of Director, I visited the Westhill plant twice during the month as the lessees have requested for these visits to enable the technical working of the plant to be smooth.

MANGALORE PLANT

The Mangalore plant will be started on trial production soon after the monsoons i.e., from about the 1st of October. The Government sanction for this is already obtained. In the meanwhile, the essential parts of the plant is kept running off and on for short intervals in order to keep the machines in perfect order.

As instructed by Director, I inspected the Coldstorage plant of Government Silk Filatures, Kollegal and have attended to the maintenance of the plant and have given training to the Boiler foreman attached to the Silk Filatures in the maintenance of the Refrigeration plant.

Preliminary work for the installation of the F.C.A. plants at Tuticorin and Nettur are being attended to and I have submitted rough plans for the buildings to house the plants at Tuticorin and Nettur to the Director and the estimates for the same, are being prepared by the Special Engineer (Construction) to MXXX address the Government for according administrative sanction.

(True copy)

Industries and Commerce Department.

Endorsement No. Ind.1793/55 dated 6th September, 1955.

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Submitted to Government with reference to Government Telephonic Message No. nil Agriculture dated 5-9-55

for Director of Industries & Commerce.

6/9/55

MVS/6-9

HEG 6/9.

Copy of Letter Ref: Rc.Pdl.5/55-56 dated 2-9-1955 from the Fisheries Refrigeration Engineer, Mangalore to the Director of Industries and Commerce, Madras-5.

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RECEIVED TO GOVERNMENT
16 SEP 1955
AGRICULTURE

Sir,

Sub: Monthly Progress report of the Fisheries Refrigeration Engineer for the month of August, 1955 - submitted.

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I was called to Mettur Dam by the Additional Director to discuss the selection of the site for the installation of the T.C.A. plant at Mettur. The special Engineer, Construction was also present. The site opposite the present Fisheries Office was selected and the same is already handed over from the Revenue Department to the Fisheries department. The estimate by the Special Engineer and building plans were drawn jointly by me and the Special Engineer. I have worked out the estimate for the erection of the plant and forwarded the same to the Special Engineer to incorporate in the total estimate for obtaining the administrative sanction.

I was requested by the Sericultural Expert to visit Kollegal urgently since the Cold Storage plant of the Government Silk Factory had gone out of order and I proceeded as per Director's instructions to Kollegal and the defect in machine was rectified.

Later I was asked to proceed to Tuticorin to meet the Additional Director and the Special Engineer to fix the site for installation of the Ice plant. The building plans were drawn jointly by me and the Special Engineer. While the Special Engineer prepared the Civil Engineering construction estimates, I prepared the erection estimates and forwarded the same to the Special Engineer to consolidate the estimates for obtaining administrative sanction for the expenditure.

During the middle of August, I attended the conference of Gazetted Officers of the Fisheries department held at Madras where various future programme of the department were discussed.

I camped at Calicut during the last week. The Director of Industries and the Deputy Director of Fisheries (Marine) were both camping at Calicut. Both the Director and the Deputy Director inspected the working of the Cold Storage now leased to private firm.

Arrangements are being made to start the Mangalore Plant on trial production from 1st October, 1955. The insulated van now working at Madras is proposed to be brought over to Mangalore to utilise it in transporting fish and ice to and from the Cold Storage when it starts functioning.

for the building to house the plant is being prepared

(sd) M. Jayaraj
Fisheries Refrigeration Engineer,
Mangalore.

( True Copy ).

Endorsement No.Pdl.1703/55-H. Office of the Director of Industries and Commerce, Chepauk, Madras-5 dated 12th September, 1955.

Submitted to Government Agricultural Department, Madras.

15/9/55

for Director of Industries and Commerce, Madras-5.

HQ 15/9.

Rll. 4/44

Office of the Fisheries Refrigeration Engineer, Mangalore 1.
Dated 6-10-55.

97

ASSISTANT SECRETARY TO GOVT. 15 OCT 1955 AGRICULTURE DEPARTMENT

MONTHLY PROGRESS REPORT OF THE FISHERIES REFRIGERATION ENGINEER, MANGALORE FOR THE MONTH OF SEPTEMBER, 1955

I submit herewith the progress report of the work done by me during the month of September, 1955.

During the first week I camped at Calicut to inspect the cold storage plant now given on lease. During my stay, I also learnt the techniques of freezing, packings etc., in the most modern lines as being done by the firm.

The Ice crushing machine of the Calicut Plant had to be transported to Coimbatore to enable P.S.G. & Sons., to submit quotations for the supply of two more machines for Mangalore and Calicut of the same features of this machine. The machine was packed and sent to Coimbatore and I accompanied the consignment. I had a discussion with Sri Subbiah Naidu, Chief engineer of P.S.G. & Sons., and he has assured me that they will submit the quotations to completing manufacture, Two Ice Crushing machines at Coimbatore. This will be the first firm in India to manufacture electrically driven Ice crushing machines completely.

92356

I received an intimation that my presence at Mettur Dam was essential for checking the parts of the ice plant machinery received under T.C.A. for erection at Mettur. I proceeded to Mettur Dam and checked all the packages with the shipping list. The important machines were moved to the garage and the machines were cleaned and greased. The parts were all checked and they were repacked and a report was submitted to the Director on this.

Preparations were taken a foot for starting the trial run of the Mangalore plant and all preliminary arrangements were made. The brine tank was cleaned and the Ice cans were cleaned and painted with aluminium paint. The headers of the raceway coils were painted with a coating of anticorrosive paint and the sediments in the brine were cleaned.

Wide publicity was given for the trial run of the Mangalore plant. I camped at Kasaragod and Kanhangad to book orders for Ice and I contacted fishermen at both places and publicity was given how cheap ice can be had from the Government factory at Mangalore.

Preparations were also made for the inauguration of the plant proposed to take place during the middle of October.

The Deputy Director of Fisheries (Marine) visited the Mangalore plant on 22-9-55 and the Special Engineer construction, on 24-9-55.

The plant was started during the last week of September on trial run to make ice available from the 1st October, 1955. There has been good sales of ice.

7.10.55

DJ/8.10.

Fisheries Refrigeration Engineer.

Submitted in duplicate to the Additional Director of Industries & Commerce, Madras.

Office of the Director of Industries and Commerce, Madras-5

Encl: Rll 03/55 of 12/2/55

Submitted to Government, Agriculture Department, Madras.

for Director of Industries & Commerce

RR 12/10

Rc. 11/A. 12/10

99

FISHERIES DEPARTMENT

From

Sri M. Jayaraj, B.E.,
Fisheries Refrigeration Engineer,
South Kanara, Mangalore.

To

The Additional Director of Industries & Commerce,
Madras.

FILED TO GENERAL
17 "O" 1955

Pdl. 5/55 dated 8-11-55

Sir,

Sub:- Monthly Progress report of the work done by the Fisheries Refrigeration Engineer for the month of October, 1955.

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Trial run of the Mangalore plant was commenced on 1-10-55 and for this the plant was started on 27-9-55 and the ice making section was put into operation. First batch of ice was produced on 27-9-55 and since there was demand the sales were started. Wide publicity was given among fishermen about the facilities offered in the plant and the fishermen were enthusiastic about the ice which was sold at the approved rate of 50 rupees per ton. There was a steadily increasing demand for ice. The sales of ice had been good during the month of October. Considerable quantity of fish was also brought into the cold storage for short time storage. A total quantity of 86 7/8 cwts. of ice was sold and a total revene of Rs. 2,265-3-3 was collected by sale of ice and rent of refrigerated space.

The Insulated Van was transfered to this section from Madras on 14-10-55 and this insulated Van was put to the maximum utilisation for transport of ice and iced fish. From 14-10-55 upto 31-10-55 a total collection of Rs. 415-8-0 was collected by hiring out the insulated Van to fishermen to carry ice or iced fish. Several consignments of fish was brought to the cold storage from Malpe by Van. The ice necessary for the transport of fish from Malpe to Mangalore was brought from our factory and taken in the insulated van in its run to Malpe conveying iced fish from Malpe to Mangalore to be marketted in Mangalore market or to keep in storage till better price is got.

The plant was inaugurated on 18-10-55 by the Hon. Minister for Agriculture and I attended to all the arrangements concerned with the inauguration. During the inauguration the plant was demonstrated in full working order. A trial freezing of fish, meat etc., was conducted to demonstrate to the public the process and utility of quick freezing.

I accompanied the District Collector and the Asst. Director of Fisheries, Mangalore to Malpe on 15-10-55 when the Union Minister for Agriculture visited Malpe. The Union Minister visited the plant on 16-10-55 and he was shown round the plant.

I accompanied the insulated Van to Malpe on 23-10-55 to contact the Fishermen to encourage them to convey fish by insulated Van to Mangalore so that to be stored in the cold storage and marketted for better price.

The Chief Minister of Madras visited the plant on 29-10-55 and the Chief Minister was taken round the plant and the working details of this scheme was explained to him.

Towards the end of the month, I left for Calicut for inspecting coir mill plant and then to Madurai to discuss with Asst. Director of Fisheries, Madurai about the model fish market with cold storage.

M Jayaraj 8.11.55

DJ/10.11.

Fisheries Refrigeration Engineer.

Submitted to Director of Industries & Commerce, in duplicate.

P.T.O.

100

Office of the Director of Industries
and Commerce, Madras-5

Endt. Pdl. 14. 23/55 dt 16/11/55.

Submitted to Govt. Government,

Agriculture department Madras.

16/11

for Director of Industries and Commerce

15/11

(5)

From
Sri. M.Jayaraj.B.E.
Asst.Director of Fisheries(Engineer)
Govt. cold storage.
Mangalore.

To, The Additional Director of Industries & Commerce. Madras.

Ref:- Pdl. 5/55 Dated 1.12.55.

HOME ASST. SECRETARY TO GOVT. 13 DEC 1955

108988

Sir,

Sub:- Fisheries - Monthly progress report of the Fisheries refrigiation Engineer - Mangalore, for the month of November 1955 submitted.

I submit the monthly progress report of the work done by me during the month of November 1955.

2/ During the begining of the month I proceeded to Madurai as per instructions of the Director for a Joint discussion with the Asst. Director of Fisheries( Madurai) to finalise the plan for a model fish market equipped with cold storage plant. The plans were finalised and sent for estimation to the Special Engineer (construction) and a copy of the plan was submitted to the Director I visited calicut and inspected the cold storage plant now given on lease on 3.11.55.

3/ The trial run of the Mangalore plant was entered for the 2 nd month. There was good off take of ice during the month and the cold storage also was being used more and more for storage of fish. Demand for ice from distant places like Kasergad, Kanhangad, Palyangadi and even upto Badagara were met. The van was used extensively for the transport of ice and ice fish, I have contacted the Fisherman local as well as that of distant fishing villages to enduce them to take advantage of the cold storage and the transport facilities available. The van has been hired out from parties from Mal e. On the up journey the van takes ice and in down journey it brings iced fish to cold storage or to Mangalore market. Ice was daily supplied to B.C.G. vaccination campaign operating at various villages for the preserving the vaccination. I addressed the Director to send 2 motor luggers to Mangalore to use them as carrier boats to convey fish to the cold storage on sea as the same are expected to arrive at the begining of December 1955.

4 I proceeded to calicut on 18 th and met the Deputy Director ( Marine) and requested him to ass orders for the trahsferring of the 2 boats, Kanhile and Revati to Mangalore. I also inspected the West hill cold storage plant. Later I proceeded to Coimbatore on 21.11.55 and met Mr. Naidu, Chief Engineer of P.C. & Sons , and inspected the ice making machine manufactured by them. The machine which is the first of its kind manufactured in India was found very satisfactory. I met the Additional Director at calicut on 23.10.55 and discussed with the Director varoius subjects connected with refrigiation.. On 24.10. 55, I accopanied the Director to Beypore where orders for the transfer of 2 boats to Magalore were issued. Later I accompanied the Director for the trial run of GUDGEON, purse seiner at Beypore .Later I had a detailed technical discussion with the Oil Chemist of Govt oil factory, Kozhikode about the proposed airconditioning of the encapulating machine room and returned to Mangalore.

5/ At Mangalore I attended the trial run Mangalore plant and also contacted fishermen to develop ice demand for ice and van.

3.12.55

Assistant Director of Fisheries(Enginner)
Mangalore.

Submitted in duplicate to the Additional Director of Industries add.commerce. Madras

Office of the Director of Industries and Commerce, Madras.

Govt. Pdl 1408/55 dt. 12/12/55

Submitted to the Government, Agriculture Department. Madras.

12/12

for Director of Industries and Commerce.

8.12.55

HQ 9/12

103

FISHERIES DEPARTMENT.

From
The Asst.Director of Industries
& Commerce, MANGALORE.

To
The Additional Director of Industries
& Commerce, MADRAS.

Ref. Pdl. 5/56 dated 2-1-1956.

Sir,

Fisheries - monthly progress Report of the work done by Fisheries Refrigeration Engineer for the month of December 1955 - submitted -

I submit herewith the monthly progress report of the work done for the month of December 1955 in duplicate.

I took charge of the 2 motor luggers - Madhu and Devika which arrived from Beypore and which were intended to be used as carrier boats at Mangalore. On 1-12-55, I met the Harbour Experts of the F.A.O. who arrived from Madras to inspect the various fishing harbours of South Kanara District. I accompanied the Harbour Experts during their inspection of Mangalore Port and the experts visited the cold storage plant also.

During the month of December, the trial run of the Mangalore plant continued and ice was sold and the refrigerated space rented out. The motor luggers were commissioned as carrier boats and they were hired out to fishermen to convey catches from the fish landing centres like Baikampady, Suratkal, Panambur, Pavanje, which are about 10-12 miles from Mangalore. The catches were brought by the fishermen by these luggers tothe cold storage to be marketted when demand arises. The insulated van also was being used on land for transport of fish, therefore, now facilities exist both for sea and land transport and the sea transport of fish has become very popular. With bigger and faster boats, fish from far away landing places, like Malpe and Coondapur can be brought to Mangalore and I have requested for a bigger and faster motor boat to be sent to Mangalore to be used as a carrier boat.

During the month of December, there has been a receipt of Rs. 2,962-8-9 by cash and book adjustment, sale of ice and a total receipt of Rs. 750-8-0, from rent of refrigerated space. The receipt for the insulated van was Rs. 374-2-0 and that for the motor luggers Rs. 234-0-0.

I have also personally contacted several fishermen and fish merchants to induce them to take advantage of the cold storage and the transport facilities both by sea as well as by land.

The Inspector of factories inspected the factory on 17-12-55 and I had discussion with him about steps to be taken to bring the factory under perview of the Factories Act.

The Deputy Director (Marine) conducted the annual inspection of the Office on 19-12-55.

During the third week, I camped at West Hill to inspect the West Hill cold storage plant now leased out. I also visited Beypore and inspected the work of the 24 footer boat proposed to be sent to Mangalore.

The Inspector General of Police visited the cold storage on 16-12-55 and he was taken round the plant.

Fisheries Refrigeration Engineer.
Mangalore.

Endl. Pdl. M 23/55 dt 11/1/56.

Submitted to Government. Agriculture Department.

Madras.

for Director of Industries & Commerce.
11/1/56

11.1.56

10/1/56.

Abn (C II)

Sub: Fisheries Development - Installation of ice plants-cum-Cold Storages & Progress of work done by the Refrigeration Engineer for the month of December 1953 - Reviewed.

Ref: from the Dte of C Lr no 13650 Y5/53 dt 13.2.53

Do AS " " " " " "

GP 3-7g

vide P/Inf (J)

The Fisheries Dept is putting up two Ice Plant-cum-Cold Storage and Fish freezing plants, one at Mangalore and the other at Westhill (Kozhikode). The building to house these plants are completed. The work of erecting the plants was entrusted to the P.W.D. The Executive Engineer, S. Kanara Division is in actual charge of the work. He is assisted by the Refrigeration Engineer of the Fisheries Dept in the work. The Executive Engineer will also, take the services of the specialist erector of M/s Volkart Bros for the purpose.

2. In order to watch the progress of work, the Director has been asked to submit monthly reports of the progress of work done by the Refrigeration Engineer. The Director has now forwarded the progress report for the month of December 1953 (vide PP, 3-7 of).

3. The Refrigeration Engineer has stated that the erection work is in progress and that many of the items of the work have been completed. He has stated that the Refrigeration Engineer of M/s Volkart Brothers, Bombay has inspected the plant at Mangalore and Beypore in December 1953 and discussed with time. Correspondence with Volkart Bros is also attached. The Engineers of M/s Volkart Brothers have promised to depute their specialist erector shortly.

4. It is submitted that the E. E. S. Kanara Division and the Refrigeration Engineer have

P.T.

been deputed to Bombay to study the working of the Deccan Cold Storage plant erected by M/S Volkart Brothers at the Bombay Port Trust Quick Freezing plant at Bombay and to submit proposals for the deputation of the Refrigeration Engineer to Bombay. It is reported that the Refrigeration Engineer is deputed to Bombay along with the E.E. S. Kanara Division and the work of erecting the plants will be completed soon after which the help of the specialist will be dispensed with. M/S Volkart Brothers on the circumstances it is expected that the erection work will be completed soon.

The Minister's remarks are called for in the progress report. It is for orders whether this may be lodged.

20.2.54.

27.2.54

Please mark reports be sent to us

Deputy Secretary's note above:

The progress report for the month of January 1954 is still awaited from the Director. A draft reminder is kept up for approval.

11.3.54

From the Director's No. 13650/57/53 dated 16-3-54 — PP 15-16 of
From the Director's No. 13650/5/53 dated 18-3-54 — PP 17-20 of

The Director has forwarded the progress report about the work done by the Refrigeration Engineer for the months of January 1954 and February (vide PP 13-20 of ) The Refrigeration Engineer of M/s Volkart Brothers has visited the Mangalore Fish Plant on January and had given certain suggestions in connection with

the erection of the plant. She has also stated that the terms and conditions for deputing the specialist erector of M/s Volkart Brothers had been discussed and finalised - the items of work referred to at 'P' to 'X' on P15 of have been completed. She Dr. C, the Superintending Engineer, Coimbatore and the Dy Director of Fisheries (South) have inspected the erection work during the month of January.

2. During the month of February, the Refrigeration Engineer has stated that he has contacted the Electrical Engineer (General) Madras, and requested him to expedite the internal electrification of Mangalore plant and that the Electrical Engineer has assured that the work will be completed by April 1954. He has also contacted the Resident Engineer Mangalore Electric Supply regarding the permanent high tension supply to Mangalore plant. The items of work referred to at 'B' and 19 of have been completed during the month under review. The Refrigeration Engineer has also attended to the items of work referred to at 'X' and 20 of during the month under review.

3. No other remarks are called for on the report. The progress report for the month of March 1954 may be awaited till 15.4.54

25/3/54 25/3/54 26/3/54

M (T) may see this note regarding the progress of the ice cum cold storage plants for fish storage that are being erected at Mangalore & Kozhikode

N. Murthy

M(T) M. Bhaktavatsalam 2/4/54
5/4/54

DEPUTY SEC 5-4-54 AGRICULT

[From the D.I. & C. Lr. No. 2838/S/54 dt. 12.4.54] (Recd. 21.4.54)

The D.I. & C. has forwarded the progress report about the work done by the Fisheries Refrigeration Engineer for the month of March 1954. (vide 21-24 ante)

2. The Fisheries Refrigeration Engineer, has studied the working of the central brick freezing plant at Bombay for 10 days from 5.3.54 to 14.3.54. He was for the control of the Bombay factory for ½ a day and studied the engineering aspects of running and maintaining the cold storage plant. He has also noted certain minor troubles encountered in the usual running of the machinary so as to enable him either to avoid or to improve such troubles in the working of the departmental plants.

3. The Fisheries Refrigeration Engineer has contacted Mr. Kallekar, the Manager of the Bombay factory and has noted about the economics and the management side of the machinary. He has visited several other Cold Storages in Bombay and met and discussed with the Managers and Engineers, the engineering and economic aspects of Cold Storages.

4. He has stated that agreement has been reached between P.W.D and Volkart Brothers and that Mr. Julius Mantero, the erector of M/S Volkart Brothers have arrived at Mangalore and the erection work went on in full swing. He has stated that progress is being maintained and that every effort is made to speed up the completion of the erection work.

5. No remarks are called for on the progress report. The progress report for the month of April 1954 may be awaited till

+A1 15.5.54

By
29/5/54

W111 30.4.54

For perusal

RJ
1.5.54 D.J
29/5/54

PP 25.27g [From the D.I.&C.M.O. Pdlr 12/5/54 dt 17.5.54]

The D.I.&C. has forwarded the progress report about the work done by the Fisheries Refrigeration Engineer for the month of April 1954. (vide PP 25.27g.)

'S' on P 27g ✓ 2. It is reported that the Specialist erector of M/s Volkart Brothers, have arrived at Mangalore on 29.4.54 and since then the erection work of plants is progressing rapidly. The items of work completed after the arrival of the erector at the Mangalore and Kozhikode plants are shown at 'A' and 'B' on P 27g. It is reported that the Kozhikode plant will be completed first and then the erector will move to Mangalore. The E.E. S. Kannara discussed with the erector of M/s Volkart Brothers certain problems in connection with the erection work. The A.E.E. and the Dy Director visited the Mangalore plant during the month of April.

'C' on P 27g ✓

'R' on P 27g ✓

D on 27g ✓

3. No remarks are called for in the report. The report for the month of May may be available by 15.6.54

X1

By
27/5/54 28/5/54

28/5/54 DJ

Afn (c II)

From the Director Pdl 12.45/54 Dt 16.6.54 PP 25-32 cf

D.O.

The D.F.C has forwarded the progress report about the work done by the Fisheries Refrigeration Engineer for the month of May 1954. (vide PP 29-32 cf).

2. It is reported that the erection work at Westhill and Mangalore is in progress and it has been proposed to complete the Calicut plant first and then to move over to Mangalore where ammonia piping is the bulk of work left over.

3. The Refrigeration Engineer visited Madras in the second week of May '54 to work out the lease conditions of the ice plants in consultation with the officers in the Fisheries Dept.. He had also discussed with the Electrical Inspector to Govt the question of granting a loan to the Mangalore Electric Supply Co.. The items of work completed at the Kozhikode plant are shown at 'A' on PP 31-32 cf. and work at the Mangalore plant at 'B' on P 32 cf.

4. It is reported that after completing the erection of West-Hill plant, the Erector will move to Mangalore to complete the erection work there. It is reported that M(A) visited the Mangalore plant on 22.5.54.

5. No remarks are called for on the report. The report for the month of June may be awaited till 15.7.54

For perusal.

5/7/54

3.7.54

'X' on P 31 cf

'B' on P 32 cf

Loan is necessary now. The Company has secured finance from other sources

'N' on P 32 cf

'S' on P 32 cf.

pp32-35 f | From the Director no Pdl 1245/54 dt 15-7-54

Do As

1 The Director has forwarded the progress report about the work done by the Fisheries Refrigeration Engineer for the month of June 1954 (vide PP33-35 f)

c on p35 f ✓ 2 The work for the month of June was mainly concentrated at the Kozhikode plant with a view to complete the plant first and then to move over to Mangalore where Ammonia piping is the bulk of

D on p35 f ✓ work left over. The work done during the month was Welding joints and pipe joints. The items of work attended to at the Kozhikode plant are shown at 'A' on P 35 f.

3. During the month under review the

B on p35 f ✓ Refrigeration Engineer has visited Madras to purchase V.I.R. cables required for

ibid ✓ wiring the 40 H.P. motor. It was reported that wiring of motors from the Switch board to the various motors and starters has been ~~Completed~~ started and is expected to be over within 15.7.54. The insulation of the

x on p35 f pipes was also started. It was also

x on p35 f reported that the system will be tested with pressure within two weeks and after successfully testing it and on completion of wiring and the water lines, the plant (Kozhikode) will be ready for charging

DDO

and test run.

4. No remarks are called for on the report. The report for the month of July 1954 may be accepted till 15.8.54.

BS
21754

GB
24754

21-7-54.

~~D.A.S.~~

for perusal. "We Dire Les send such proposals for keeping up the plants. They are being examined & put up separately)

N Murugesan
30754

M(A)

M. Arumugamalai
3/8

3-AUG1954
AGRICULTURE DEPARTMENT

from the Director no Pdl 12-45/54 dated 16.8.54. PP 37-39 C

3-AUG1954
AGRICULTURE

1 The D.I.E.C has forwarded the progress report about the work done by the Fisheries Refrigeration Engineer for the month of July 1954 (vide PP 37-39 C)

2. The work for the month of July was mainly concentrated at the Kozhikode plant the erection and testing of the plant is completed and the plant is ready for charging and trial run. The Refrigeration Engineer assisted the Specialist erector of M/s Volkart Brothers in the erection work. The details of work attended to by the Specialist erector and the Refrigeration Engineer during the month under review are given at 'A' and 'B' on P 39 C.

'X' on P 39 C

'A' & 'B'

3. As regards the Mangalore plant, the

PTO

'Conf 3½y' internal electrification of the plant was taken up by the Electrical Engineer (General) and is nearly completed. -

'D wf 39y' the water supply lines are in progress.

'D wf 39y' It was reported that the erector and welder will move over to Mangalore in the first week of August and the remaining items of work will be taken on hand and completed.

4. No remarks are called for on the report. The report for the month of August may be awaited till 15 9.54.

25/8/54 29/8/54. AE.

12/9/54

From the Director Pdl 12 [illegible] 54 dated 4.x.54.

'41-43y' The D.I.E.C has forwarded the progress report about the work done by the Fisheries Refrigeration Engineer for the month of August 1954 (vide PP 41-43y)

2. During the month of August, the Refrigeration Engineer worked with the Erector for the Mangalore plant. The items of work attended to during the month are given at 'A' on P 43y.

'43 on 43y' 3. The A.D.F. Kalaban held a conference of the local fishermen on 13.8-54 at West Hill and the entire West Hill plant was demonstrated to the fishermen and the fisheries

DJD

10

Refrigeration Engineer explained to the fishermen how they could make use of the facilities offered at the Cold Storage. The fishermen were also requested to bring all their catches to the Cold Storage during the trial run of the West Hill plant. The insulated van stationed at Kozhikode was also demonstrated to the fishermen and they were requested to utilise the van.

4. It is reported that the finishing at West Hill of the Cold Storage such as painting, white-washing etc. are being attended to and with the availability of power the West Hill plant will be ready for charging and test run.

5. It is submitted that the proposal of the Dy.Dc for the trial run of the West Hill plant is separately under consideration. No other remarks are called for on the report. The report for the month of September may be awaited till 25.x.54.

Dy 16x54 16.x.54 — 21x54

[From the Dy.Dc dr no Pdl 1345/54 dated 15.x.54] PP 45 47 cy

1. The Dy.Dc has forwarded the progress report about the work done by the Fisheries Refrigeration Engineer for the month of September 1954 (vide PP 45-47 cy)

2. During the month under review, the Engineer worked along with the Erector of Volkart Brothers for the

PTO

completion of the Mangalore plant. The items of work attended to at Mangalore are given at 'A' on P47 cf. It is reported that the final finishing work such as painting, white washing etc of the west hill plant is being attended to and the Electrical equipment is being tested and the motors are being backed. It is also reported that the west hill plant will be put for a trial test by the beginning of October. The officers of the Fisheries Dept and the Electrical Engineer have visited the plants during September. The Refrigeration Engineer attended a meeting held at Secretariat for discussions to fix up the terms and conditions of leasing the plants.

3. The trial production run of the West Hill plant for a period of one month has already been sanctioned by the Govt. No other remarks are called for on the report. The report for the month of October may be awaited till 15.11.54.

25 x 54

31.x.54

From the Director Pdl 13 Tech A 3/54 dated 15.11.54

1. The Director has forwarded the progress report about the work done by the Fisheries Refrigeration Engineer for the month of October 1954 (vide PP 49-51 cf)

2. During the month under review, the Engineer conducted the trial run of the Kozhikode plant in the presence of P.W.D. Staff and the Erector of M/S Volkart Brothers. The Engineer has also contacted the local officers and had a discussion with the Fisheries officers of Kozhikode and nearby towns to chalk out a programme for sales of ice at Kozhikode and nearby stations connected with railway. He has contacted

PP

several iced fish merchants to canvas order price and as a result Gat rice has became popular in all Coastal towns of Malabar and S. Kanara.

3. It is reported that even though fresh fish storage facilities were given to the fishermen, the facilities could not be availed of by the fishermen as the fishery was poor at Kozhikode. The Refrigeration Engineer has stated that the initial utilisation even though small has educated the fishermen in modern preservation and when catches improve there will be maximum utilisation.

4. As the receipt from sales of rice produced at the Kozhikode plant is expected to exceed the running expenditure, the Engineer proposes to continue the trial run of the plant. The engineering management and the sales are being looked into by the Engineer. The erection work of the Mangalore plant is also completed and the Engineer propose to test the plant with air pressure shortly.

5. No remarks are called for on the report. The report for the month of November 1954 may be awaited till 15.12.54.

26/11/54 26.11.54

28/11/54 29/11/54

D.S.

From the Director No. ICA3/54 dated 16.12.54.

1. The Director has forwarded the progress report about the work done by the Fisheries Refrigeration Engineer for the month of November 1954. (vide pp 53-57 ante)

2. During the month under review the Engineer was engaged in the trial production run of the Kozhikode plant. The rice production and sales were continued as an experimental measure and the rice was sold to fishermen and the Refrigerated space hired out to them. Due to effective propaganda all over the Malabar Coast the Gat rice has became popular and from

P.T.O.

15.x.54 to 14.11.54 a total quantity of 776¼ cwts of rice was sold. Ice has been despatched to various places in Malabar Dt as detailed at Annexure 7. The trial production run of the Vengikode plant for the period from 15.x.54 to 14.11.54 resulted in a savings of about Rs 500/-. The factory is now in its second month of production. The factory has now overcome the various handicaps such as lack of publicity, lack of proper table for cold stored fish and the delay in the commencement of peak fishery season in Malabar. The fishermen in the locality began realising the advantages of cold storage and the catches are being preserved in the Cold Storage.

3. During the period from 15.11.54 to 30.11.54 a total of 1,287 Cwts of ice has been sold and a total revenue of about Rs 2,600/- has been realised. Receipts exceeded the running cost by a large margin. The factory is being put to regular working and the fishermen are being educated in the modern methods of preservation of fish.

4. The Insulated Van received under the T.C.A. Programme was hired out to the fishermen in the locality. The Refrigeration Engineer has addressed the Railway authorities to grant quarter parcel rate for ice booked by Govt ice factory to various fishing towns so that this may give a fillip to the iced fish trade in the West-Coast.

5. The Mangalore plant is at its last stage of erection and after the erection is

P.T.O.

completed the plant is proposed to be charged for trial run.

6. No special remarks are called for on the report. The report for the month of December may be awaited till 15.1.55.

Bh 19/12/54 — JM 20/12/54 — CR 23/12/54 — ~~DS~~ 23/1/55 — ER issued on 25/1/55 — DR 25/1/55

From the Director Pdl 32(3)/55 dated 15.1.55.

1. The DTEC has forwarded the progress report about the work done by the Fisheries Refrigeration Engineer for the month of December 1954 (vide PP 59-63 cf).

2. During the month under review the Engineer was engaged with the trial production run of the Kozhikode plant. There has been a total receipt of Rs 58241.9 during the second month of trial production run of the plant against the total running expenditure of about Rs 1402/- resulting a savings of Rs 2,482.1.0. The engineering and the management side of the plant was under the control of the Engineer. The Engineer has also attended to certain other items of work in preparation to the inauguration of the plant. The insulated van obtained at Kozhikode was hired out to private fishermen for transport of ice.

3. The Engineer has reported that the erection work of the Mangalore plant was completed and the plant was tested on air pressure with temporary connections to motors. The plant was charged with Ammonia and the plant was tested section by section. The ice-making section and the fresh fish storage

PTO

room were tested and the Brick freezing Section will be tested after the completion of the permanent motor wiring.

4. No special remarks are called for on the report. The report for the month of January may be awaited till 15.2.55.

By 21/1/55 24/1/55 26.1.55

D.S. 1/2/55 Asst(Cn)

From the Dte of Chems Pdl 32/43/55 dated 21.2.55

1. The Dte has forwarded the progress report about the work done by the Fisheries Refrigeration Engineer for the month of January 1955 (vide PP 65.67 ej)

2. During the month under review, the Engineer was attending to the various arrangements in connection with the inauguration of the west-still plant by PM(A). He demonstrated the plant to the public and also explained to them the advantages of Cold Storage. The west-still plant worked satisfactorily during the third and fourth months of its trial production run, and the management of the plant was looked after by them. The Engineer has reported that the various safety precautionary measures are being equipped to the factory and the mechanics are being trained for the proper maintenance.

3. Mangalore plant: The items of work attended to for the Mangalore plant are given at A of PP 67 ej. It is reported that after completing the permanent electric wiring, the freezing Section

Q 70

of the plant will be put to test run along with the ice making section which was tested for satisfactory working already satisfactorily and water wiring is being done now to the freezing tunnel.

4. No remarks are called for on the report at P.67.C.

The report for the month of February may be accepted till 15.3.55.

By 27.2.55 The report at page 67 C.F. is for perusal.

28/2/55

D.S.

From the Director no 32 Y3/55 dated 30.3.55. PP 69-71 C

1. The Director has submitted the progress report about the work done by the Fisheries Refrigeration Engineer for the month of February 1955 (vide PP 69-71 C)

2. The trial production run of the Mangalore plant being continued during the month of February also - the mechanics were being trained for proper maintenance of the plant and certain items of work for the general maintenance of the plant were being attended to. The final items of erection work of the Mangalore plant are being attended to and that the plant will be put on a trial production run shortly. - Paras 1 on P 71 C

- Paras 2 on P 71 C

3. No special remarks are called for on the report. The report for the month of March may be

DTD

awaited till 15-4-55.

Agin (C II)

PP 73-75 Cy | From the Director Pdl 32 y 3 | 55 dated 11-4-55

1. The Director has submitted the progress report about the work done by the Fisheries Refrigeration Engineer for the month of March 1955 (vide PP 73-75 Cy).

2. The trial production run of the Shozhikode plant ~~being~~ was continued during the month of March also. As the fishing season was poor during the month, the sales of ice were slack from the Shozhikode plant. The Refrigeration Engineer camped at certain important fishing centres to secure order for ice and he has also attended to certain maintenance work of the Shozhikode plant.

3. The Mangalore plant is tested section by section and the electric wiring of motors is almost completed. But for the few finishing work, such as distempering of cold storages, insulation of Ammonia pipes, painting and certain other minor items, the plant is ready for trial production run. The Refrigeration Engineer has submitted proposals to the Director for conducting a trial production run of the Mangalore plant. The Dir. has not yet submitted the proposals to Govt.

4. The proposals of the Director for the trial production run of the Mangalore plant may be awaited separately. The Shozhikode plant has since been ordered to be leased out to a Bombay

firm, viz) Bombay Ammonia and Refrigeration Co for a period of 3 years at the lease amount of Rs 12000/- p.a. No other special remarks are called for on the report. The report for the month of April may be awaited till 15-5-55

BB 20/4/55 20.4.55

21/4/55

D.S.

From the Dirs Dr no Pdl 32.22/55 dt 11.5.55. PP 77-79 y

1. The Dirs has submitted the progress report about the work done by the Fisheries Refrigeration Engineer for the month of ~~April~~ March 1955 (vide PP 77-79 y).

2. Roghikode plant: The details of work attended to for the Roghikode plant are given at 'A' on P 79 y. The trial production run of the Roghikode plant was continued during the month of April also. The Roghikode plant has since been ordered to be leased out to a Bombay firm for a period of 3 years.

3. Mangalore plant: The details of work attended to for the Mangalore plant are given at 'B' on P 79 y. The Trust have since ordered the trial production run of the Mangalore plant for a period of one month in the first instance. The Dirs. proposes to put the plant for trial run for some months in order to gain popularity and then to call for tenders for the leasing out of the plant.

4. No remarks are called for on the report. The report for the month of ~~April~~ May may be awaited till 15/6/55

BB 26/5/55 26/5/55

27/5/55

D.S. 27/5/55

9716 Coll 57

Agric II

P 81 cf

[From the Dtee Pdl 32 Qrs/55 dt. 18.5.55]

To A.S

The file deals with the progress report about the work done by the Fisheries Refrigeration Engineer. The report for the month of April/May will be found at pp. 83-84 cf. No remarks called for on it. The report for the months of May/June may be awaited till 26.6.55.

13/6/55

13.6.55

14/6/55

18/6/55

P 87 cf

pp 89-90 cf

From the Dtee Lr no Pdl 17 Q3/55 dt 6.7.55.

From the Director no Pdl 17 Q3/55 dt 14.7.55

1. The file deals with the progress report about the work done by the Fisheries Refrigeration Engineer. The reports for the months of May and June are at P 87 cf and pp 89.90 cf respectively.

A in P 87 cf

2. May 1955: The trial run of the Kozhikode plant was continued during the month of May also. The final items of work of the

B & C in P 87 cf

Mangalore plant were completed and the plant is ready for being taken over from the P.W.D.

D in P 87 cf

The Refrigeration Engineer camped at Adirampatnam and the entire ice-plant machinery lying there were dewicked.

P 70

3. June 1955:- The trial run of the Kozhikode plant was stopped and the plant was handed over to the lessee, viz. M/s. Bombay Ammonia and Refrigeration Co., Bombay on 1.7.55. The Mangalore plant was taken over from the P.W.D. and pending the provision of permanent supply to the Mangalore plant, temporary supply was arranged for. As the fishing is very poor, it is proposed to start the trial run in September or October 1955 when new fishing season will set in. The Refrigeration Engineer visited Ratnagiri in connection with the installation of the ice-plants received under the T.C.A. Aid. No remarks seem called for on the progress reports. The report for the month of July 1955 may be awaited till 15/8/55.

19/7/55

23/7

21.7.55.

7916 E) 54

From the D/te Letter No Pdl 17 Q3/55(2) 6.9.55

To AS

The file deals with the progress report about the work done by the Fisheries Refrigeration Engineer. The report for the month of July 1955 will be found at p 93 cf. No remarks seem called for on it. The report for the month of August may be awaited till 25.9.55.

15/9/55
16.9.55
20.9.55
23/9/55

p95 cf From the D/te No Pdl 17 Q3/55-2 dt 24.9.55

The file deals with the progress report about the work done by the Fisheries Refrigeration Engineer. The report for the month of August will be found at p 95 cf. No remarks seem called for on it. The report for the month of September may be awaited till 25.10.55

24.9.55
27.9.55
26/9/55
26/10/55

Asst (E I)

From the Dir & C Pdl Q3/55 dated 12.X.55 P 97 cf

The file deals with the progress report about the work done by the Fisheries Refrigeration Engineer, Mangalore. The report for the month of September 1955 is on P 97 cf and it may be perused. No special remarks are called for on the report. The report for the month of October may be awaited till 15.11.55.

21x55

21x55

24/10/55

25.10.55

From the Addl Dir Pdl 17.Q3/55 dt 16.11.55. PP 99-100 cf

1. The file deals with the progress report about the work done by the Fisheries Refrigeration Engineer, Mangalore. The report for the month of October, 1955 is on P 99 cf and it may be perused.

2. The trial production run of the Mangalore plant was commenced on 1.X.55 ✓ A or i cf
The trial run was inaugurated by M(A) ~ D or f i cf
on 18.X.55. The C.M. was also visited the ✓ E o i
plant on 23.X.55. A total quantity of 869 7/8 Cwts ✓ B or f i
of ice was sold and a total revenue of Rs 2,265-3-3 was collected by sale of ice and rent of refrigerated space. The subsidies ran received under the T.C.M. Programme which ✓ E o

was hitherto stationed at Madras has been transferred to Mangalore and the van will be put to the maximum utilisation for transport of rice and iced fish.

3. No remarks are called for on the progress report. The report for the month of November may be awaited till 15-12-55.

20/11/55

21.11.55

22/11/55

(24/11) D.S.

Ploy from the Addl Dir.C his no Pdl 1703/55 D/12.12.55

The file deals with the progress report about the work done by the Fisheries Refrigeration Engineer, Mangalore. The report for the month of November 1955 is on P ploy and it may be perused.

2. The trial production run of the Mangalore plant was entered for the second month and there was good off-take of ice during the month and the Cold storage was also being used more and more for storage of fish. The insulated van stationed at Mangalore was used extensively for the transport of rice and iced fish. During the beginning of the month the Engineer proceeded to Malpuram to finalise the plan for a model fish market equipped with Cold-storage plant. He has also proceeded to Calicut and inspected the Welt. Hill Cold-storage plant.

3. No remarks are called for on

24

the progress report. The report for the month of December may be awaited till 15.1.56.

16/12/55

17/12/55

16/12/55

D.J.

19/12

From the Addl Dir Fisheries No Pdl 1723/55 dt 11.1.56. P 103 g

1. The file deals with the progress report about the work done by the Fisheries Refrigeration Engineer, Mangalore. The report for the month of December, 1955 is at P 103 g.

2. The trial production run of the Mangalore plant was continued and ice was sold and the refrigerated space rented out. Two motor luggers were commissioned as carrier boats and they were hired out to fishermen to convey catches from the fish landing centres to the cold storage to be marketed when demand arises. The insulated van was also being used on land for transport of fish. During the month of December there had been a receipt of Rs 2,962-8-9 by sale of ice and Rs 750-8-0 from rent of refrigerated space. The receipt for the insulated van was Rs 374-2-0 and that for the motor luggers Rs 234/-. The D.G. of Police, the Director of Fisheries (Marine), and the Inspector of factories visited the Mangalore factory during the month under report. ✓ 'A' at P 103 g ✓ do ✓ 'B' at P 103 g ✓ 'C' & 'D' at P 103 g

3. No remarks are called for on the

progress report. This file contains 4 the progress report of the Refrigeration Engineer for the periods from December 1953 to December 1955. The file may be recorded for facility of future reference for orders.

2. The progress report for the month of January 1956 is due on 15.2.56 and it will be watched separately.

Cro No 158 / Agri 23/1/56. 16/1/56

Fisheries - Fisheries Refrigeration Engineer, Bangalore - Monthly progress report of the work done by the Refrigeration Engineer - Report for the period from December 1953 to December 1955 - Papers received

16/1/56